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How perception of wealth and other socio-economic factors impact upon an individual's financial decision-making ability

Dissertation submitted in partial fulfilment for the degree of
Master of Research (MRes)

The Open University

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On 5th February 2018

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Abstract

Personal financial decision making is a complex, dynamic and emotional process, with individuals sometimes appearing quite irrational (Goldberg and Lewis 1978). These decisions are made using an individual's basic financial capability but influenced by their emotional attitude to money (Atkinson et al 2007). Over 70% of the UK adult population are unable to demonstrate sufficient skills in financial capability and are making inopportune financial decisions that can result in impaired quality of life for them and their families or in more serious cases financial distress (MAS 2015). This lack of ability is amplified by current peer pressure to demonstrate wealth and "keep up with the Joneses". Add a cultural reservation in discussing financial problems and we have a serious gap in the financial education of our population. Recent international research suggests this is not just a UK problem.

This study examines the relationship between the individual's perception of wealth and other socio-economic factors with their resultant money attitude, and financial capability, which ultimately determines their financial decision-making ability. This is a quantitative study of an extracted purposive sample of 33,715 respondents who self-selected as experiencing an adverse financial event in the last five years in an on-line survey of over 109,000 respondents in the UK. This study examines and reports upon the interactions between the individuals' perception of wealth, specific socio-economic factors, five components of financial capability and four money attitudes.

The results confirm the complexity of financial decision-making and that most measurable aspects of financial capability vary positively with perception of wealth. The money attitude "security" was significantly associated with wealth and financial capability but the other three money attitudes, power, love and freedom were not. This supports the hypothesis that there is a significant relationship between perception of wealth and financial capability influenced by the Money Attitude Security.

Chapter One - Aims and Objectives

1.1 Introduction

Personal financial decision making is a complex, dynamic and emotional process. Rationally one can say that, 'effective decisions result from a systematic process, with clearly defined elements, that is handled in a distinct sequence of steps' (Drucker 1967). Whilst this is true and perhaps should be the case, when it comes to personal financial decisions elements of irrationality appear (Goldberg and Lewis 1978).

Many of our financial decisions are uncertain in that we do not know the outcome as there is an element of risk. When we are dealing with our own money we are often reluctant to take that risk and tend to irrationally favour definite information over uncertainty (Ellsburg 1961). Although Independent Financial Advisers are instructed in how to assess an individual's appetite for risk they seem to fail to convey effectively the risk as many customers report they would not have purchased products had they been advised properly. Examples are the mis-selling of endowments, pensions and Personal Protection Insurance (PPI) (Atkinson et al 2007). Effective financial decision making is therefore: The thought process of selecting a logical choice from the available options, in the time available, that will probably be successful in producing the desired or intended result.

Since 2000, lack of individuals' financial capability in the UK has become a growing concern that the government are attempting to address. (Towards a National Strategy for Financial Capability, FSA 2003) (Financial Capability: The Government's long-term approach, HM Treasury, 2007) (The Economic Impact of Improved Financial Capability, Europe Economics 2016). The work undertaken prior to 2003 focused upon basic financial literacy and the skill of managing money. Growing research soon highlighted

the fact that the problem was with financial capability not financial literacy, defining the former as the culmination of financial knowledge, skills and ability to access financial products and services (Johnson and Sherraden 2007). In 2006 research, which looked at four domains of financial capability; Managing Money, Choosing Products, Planning Ahead and Staying Informed, showed that Managing Money was the area in which capability was highest (Atkinson et al 2006), but it raised concerns, amongst others, that over 50% of the population were not addressing appropriate intertemporal choices i.e. lack of adequate pension provision (Pensions Commission 2004) (MAS 2015). This thorough study for the Financial Services Authority (FSA) provided the basis for HM Treasury's Financial Capability paper published in January 2007. This was followed by a number of studies undertaken into various aspects of financial capability with age, gender and income but findings varied: Money Management, which encompasses Making Ends Meet and Keeping Track, improved with age and income (Taylor 2011), but whilst the young and unemployed had the lowest financial capability the older married couples had the highest (Taylor et al 2011), (Furnham et al 2012). This demonstrated the complexity of the interaction of financial capability with individual money attitudes and behaviour (von Stumm et al 2013). In 2011 the BBC undertook a survey with the Open University and University College London, The Big Money Test, inviting viewers to participate. This on-line survey had over 109,000 respondents and is a rich source of data. From this a number of studies have been undertaken on financial capability, money attitudes and socio-economic status (von Stumm et al 2013) and sex differences in money pathology (Furnham et al 2014). These studies extracted interesting data but with the scarcity of similar studies, had little to substantiate their conclusions and further research is needed to develop the ideas therein. Although it was a large sample, conclusions drawn based on less than 1% of respondents without further corroboration

lack validity. This is where my proposed research fits. The need for this research is, I believe, further supported by recent publications which:

- reported on the potential economic value of improved financial decision-making in the UK (Europe Economics 2016);
- identified the failure of the government's efforts to introduce financial education into schools in England (Young Enterprise 2016); and
- made a number of important recommendations in response to their findings that a sizeable number of UK citizens lack access to even the most basic financial services (Select Committee on Financial Exclusion 2017).

Their results conclude that if the financial capability of the population was improved there would be a beneficial effect in the individuals' quality of living and a significant financial benefit to the country's economy (Europe Economics 2016).

This research is suggesting that for an individual to be able to make an effective personal financial decision they need to have learned a number of skills which shape their overall financial capability (Atkinson 2006). The application of these skills is then influenced by their money attitude, which is a psychologically developed emotional response to the attributes they imbue to money (Goldberg and Lewis 1978). The development of these cognitive skills and emotional responses continue as the child grows through life experiences into adulthood and into old age. Research shows a gradual deterioration in those over 65 years, which is attributed to lack of cognition in old age (Hean et al 2013).

This study proposes to demonstrate the hierarchical relationship from socio-economic factors such as perception of wealth, to the Money Attitudes and/or Financial Capabilities and that the individual's financial decision-making ability is determined by the resultant relationship between Money Attitude and Financial Capability.

From the existing research literature, five domains of financial capability and four emotional money attitudes have been identified for use in this study. It is proposed that these nine factors are the mid-point of a hierarchy that develop in an individual from childhood and are determined by a mixture of socio-economic factors, to be identified and mapped, which in turn determine the individual's financial decision-making ability (Figure 1).

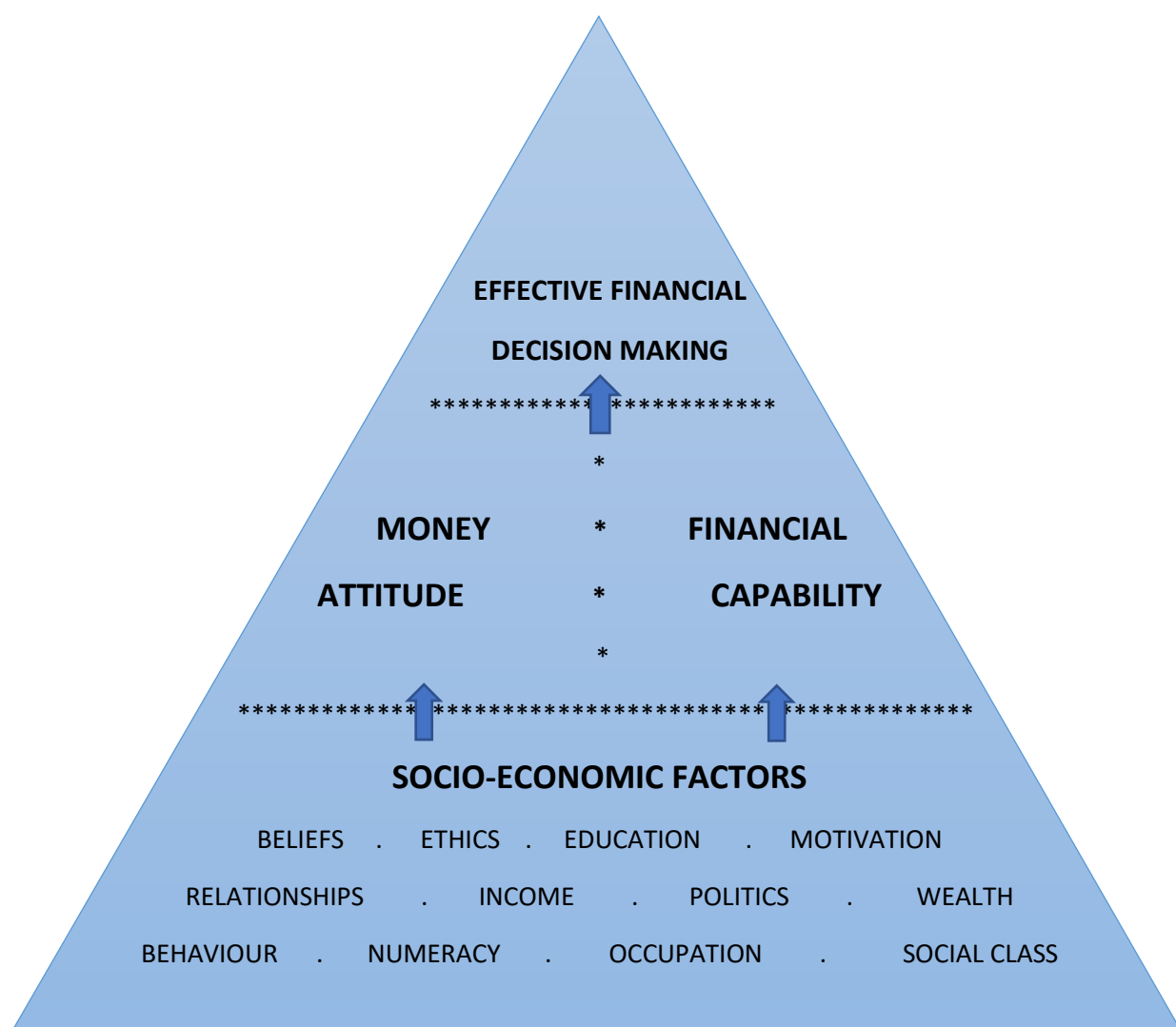


Figure 1 Financial Effectiveness Hierarchy

There is considerable debate as to where, when and how to invest resources in order to successfully intervene to improve individuals' financial decision-making ability (HM Treasury 2007). It has been suggested that the current government response, based

upon improving cognition may be ineffective if more recent research highlighting the impact of emotions and behaviour on financial decision-making is accurate, as the mode of effective intervention would be different (De Meza et al. 2008). However, if an individual's potential financial effectiveness and ability to make effective financial decisions could be plotted on a simple matrix of Money Attitude versus Financial Capability, then the individual could, from the matrix, identify their position and determine the area of intervention they need to address in order to improve their position, which could prove more effective.

1.2 Aims

This research examines the relationship between a number of socio-economic factors, including perception of wealth, that an individual has been exposed to, with their resultant money attitude, financial capability and ultimately their financial decision-making ability.

1.3 Objectives

Using a purposive sample of over 33,000 individuals who have self-selected as experiencing an adverse financial event in the last five years, the objectives are:

1. To identify and report upon the perception of wealth and any other socio-economic factors that demonstrate a significant correlation with any particular aspect of money attitudes or financial capability.
2. To conduct statistical analysis of the data in order to measure the impact of perception of wealth and the other selected socio-economic factors upon the individual's reported money attitude and financial capability.
3. To compare results with other research for corroboration and to determine future research developments.

1.4 Research questions

In order to achieve these objectives, the following research questions have been formulated using the selected sample of adults in the UK who have experienced an adverse financial event.

1. What is the relationship between perception of wealth and financial capability amongst adults in the UK who have experienced an adverse financial event?
2. What is the relationship between perception of wealth and money attitude amongst adults in the UK who have experienced an adverse financial event?
3. What is the relationship of education, social class, occupation, behaviour, religious beliefs, political orientation and income, on the financial capability and money attitude of adults in the UK who have experienced an adverse financial event?
4. What is the relationship between financial capability and money attitude amongst adults in the UK who have experienced an adverse financial event?

Chapter Two - Literature Review

2.1 Introduction

Research to date identifies the issue of individuals' poor financial decision-making and financial capability in the UK and many other developed countries, with government policy-makers growing more concerned due to the potential impact upon their countries' finances and gross domestic product (GDP) (OECD 2005). Policy-makers' assumptions that people will manage and that the government's ill-conceived improvements to financial education will result in a financially literate workforce and thus improved national economy and GDP is proving false (Stillwell 2016) (Young Enterprise APPG 2016) (OECD 2017). Despite the accepted research findings and the promises made by the FSA in their published National Strategy (HM Treasury 2007) there has been little effective implementation. Financial deregulation of pensions introduced in 2015, provides freedom of choice to the individual but simultaneously increases the financial risk they bear. Without adequate financial education this unacceptable risk is likely to aggravate the current concerns and unlikely to improve GDP (Banks et al 2015).

This study proposes that an individual's resultant ability to make effective financial decisions depends upon the interaction between their financial capability and emotional response to money in the form of a money attitude, both of which have developed as a result of the individuals social and economic experiences to date. Money Attitude, a term initially coined by Goldberg and Lewis in their book "Money Madness" has been picked up in the literature. They suggest that psychologically we use money to satisfy the four basic human needs of Power, Love, Freedom and Security (Goldberg and Lewis 1978). In this review of the literature three aspects will be used to frame the study:

- 1) the development of financial capability from financial literacy;

2) the growing interest in money attitudes, which reflect the individuals' emotional response to money and

3) the influence of specific social and economic factors on the development of both financial capability and money attitude in the adult.

As these issues are inherently interdisciplinary this review is not confined to a single discipline but encompasses work from areas within Economics, Psychology and Sociology.

Since 1945, Britain's financial services industry has been subjected to major change, growing from 3% of Britain's GDP to 25% by the end of the century (Watson 2004). In 1968 the clearing banks computerised the clearing system in response to the post-war growth and in preparation for technological changes. Following deregulation of the banking sector and the implementation of technical innovation the financial services offered on the high street to the working-class customer expanded as the building societies competed with the banking sector. By the end of the twentieth century, mortgages, with-profits insurance, personal pension plans, bank accounts and credit cards were the norm with home ownership increasing to 70%, private bank accounts to 85% with over 40% of the population owning at least one computer (Watson 2004). The financial services sector responded competitively with credit cards, ATMs (Automatic Teller Machines), debit cards, telephone banking, home banking, contactless card transactions, personal mobile phone transfers (Pingit) and now cheque imaging on your mobile (Barclays Bank 2014). The skillset needed to manage personal finances today is very different to that needed in 1945.

We have moved to an electronic age of abstract finance, known in finance circles as dematerialisation, where many of the population do not have the basic financial skills and knowledge to cope. This is evident by the increasing number of bankruptcies, the inability of well-paid people to effectively deal with financial adversity and the ever-increasing number of people in over indebtedness. A recent survey corroborated this showing that 50% of individuals focus on today's needs making few plans for the future, 22% are unable to read a bank statement, 40% do not understand the impact of inflation on the real value of their money, 40% have less than £500 in savings and nearly a quarter of individuals are using high cost short-term credit (MAS 2015). The conclusion is "Most people do not understand the basics of personal finance, and are not generally engaged in money management" (FIC 2015 p12).

Since 1966, when Barclays introduced their first credit card and were promoting private banking accounts for the working-class customer, the issue of an individual's financial capability has increased in importance due to the increasing complexity of the financial markets and the increase in financial risk and responsibility imposed upon the householder.

Over the last three decades financial scandals have resulted in repeated changes to improve financial regulation in the UK. In 1985 the Chancellor of the Exchequer set up the Securities and Investments Board (SIB) as a regulatory body to oversee the UK financial markets to prevent fraud and insider dealing. But the collapse of Barings Bank in 1995 resulted in the birth of the Financial Services Authority (FSA) with the financial services act 2000 changing its responsibilities and improving its governance structure to become more effective. Two of its main principals were:

1. to enhance the understanding and knowledge of members of the public of financial matters (including the UK financial system); and
2. to regulate the financial services industry providing consumer protection.

However, despite this action, there were still cases of product mis-selling, over-indebtedness, and Independent financial advisers (IFA) being influenced by commission bias (HM Treasury 2007).

Although the FSA was more effective and successfully prosecuted financial organisations that failed to comply, the standards set in the UK were lower than other countries (Turner 2009) and insufficient to control the big banks. Perceived regulatory failures of the banks during the 2007/2008 financial crisis resulted in the government making changes, once again, to the regulation of the financial services industry. They renamed the FSA the Financial Conduct Authority (FCA) and new legislation gave it significant regulatory powers.

Astute businesses, including the big banks, are in business to make money and profits for their shareholders. Although many naïve investors and banking customers still have an irrational belief in the customer focused advice provided by these institutions and fail to understand their personal responsibility for their own financial decision making (Della Vigna and Malmendier 2004, Heidhues and Koszegi 2010).

In January 2007, the government published its long-term strategy announcing that “the FSA leads the National Strategy for Financial Capability, working in partnership with the government, industry and the voluntary sector” (HM Treasury 2007). They identified the needs for:

- financial education in schools,

- further finance education for adults,
- work with employers and
- provision of unbiased financial advice and help for those experiencing financial distress.

Although much was achieved, they did not have the infrastructure nor provide adequate budgets to deliver these goals effectively (Stilwell 2016).

The Money Advice Service (MAS), a service set up by the FSA in 2011, worked with the charity sector to provide most of the adult training and support. Although there are many good programmes available it has not had sufficient reach (MAS 2015). The debt advice is available and sought by those in need. Unfortunately, the advice and training available for adults is not sought until it is too late. Only 17% of those reporting over-indebtedness seek advice (MAS 2013). Advertising of free financial capability training is not being promoted effectively and whilst many providers are delivering good training, they are failing to reach those most in need (MAS 2015).

In response to the research findings, in 2014 the government at last introduced finance education into the PSHE curriculum in secondary schools. Unfortunately, this was done without adequate support, no long-term strategy, no teacher training and no provision for primary schools (Young Enterprise 2016) (Stillwell 2016). Despite financial education now forming part of the statutory national curriculum a recent survey has shown that 59% of those teachers delivering financial education were not aware that it was made statutory in 2014, only 35% of teachers reported that financial education was a medium to high priority in their school and only 17% of teachers being asked to deliver financial education, have received training in how to do so. It appears that over 70% of our young people are still leaving school without ever having received a structured lesson on

personal finance (Young Enterprise 2016). This problem is not unique to the UK. Virginia in the USA is one of the five states that has been providing financial education in schools as part of their K-12 (Kindergarten through to year 12 i.e. pre-university) programme since the 1980's. The Council for Economic Education in the USA report that in these five states those citizens, now in their thirties, are significantly better off having made significantly better financial decisions in their lives than states and countries where there was no financial education (CEE 2016). Of the 51 states reported, only 17 are requiring students to take a course in personal finance and despite the positive feedback and support from the communities they are reporting that there has been no investment or improvement in the delivery of financial education in the US in the last two years (CEE 2016). There is a distinct danger that the UK will be following this route. Funds are initially invested in a new programme and without continued strategic support those delivering the set goals treat them as achieved. Martin Lewis, Young Enterprise Trustee, voiced his concerns stating that "we are only at the beginning of this" (Young Enterprise 2016).

2.2 Financial Capability

Financial capability is a common term and whilst definitions vary most agree that it is an individual's ability to manage their money, maintain control of their finances, making appropriate decisions and accessing appropriate financial products (Atkinson et al 2006) (Johnson and Sherraden 2007) (Taylor 2011). Sherraden (2013) stated that the main building blocks of financial capability are financial knowledge and financial inclusion. It was soon realised that the topic was not just the basic skill of financial literacy but a complex accumulation of skills and behaviours (Johnson and Sherraden 2007, Atkinson et al 2007). In this study an individual's financial capability has been assessed by

calculating an average from the five elements, identified in the literature; Making Ends Meet, Keeping Track, Choosing Products, Staying Informed and Planning Ahead (Atkinson et al 2007).

Financial literacy has been a topic of research and an area of growing concern since the 1990's, especially in young people. It is linked to basic numeracy and literacy and in both the UK and the USA it is growing in recognition and importance (Blunkett, DfEE 2000). The governments and policy-makers in most developed countries had been slow to address or recognise the problems of financial illiteracy but since 2000 there is increasing literature and acceptance, as policy-makers realise that increasing their population's financial capability may have a positive effect on their GDP (Lusardi and Mitchell 2011). Funding from the FSA and other government sources has resulted in an increase in interest in this topic in the academic community (Atkinson et al 2006) (De Meza et al 2008) (Taylor 2011). Many authors have started their research only to come to similar conclusions, which is that financial literacy is a misnomer and are suggesting that what we need to develop is financial capability (Johnson and Sherraden 2007) (Atkinson et al 2007) (Lusardi and Mitchell 2011).

The work of Atkinson's team in 2006 was funded by the FSA to survey the levels of financial capability in the UK. It was a ground-breaking and comprehensive exercise consisting of four waves of interviews and two pilot studies that provided the data to support the FSA's Long-Term Strategy. This research showed that 'Managing Your Money' defined as, making ends meet, keeping track of finances and planning for predictable expenses, is the area in which many people do reasonably well, even those on very low incomes (Atkinson 2006, Taylor 2011, von Stumm et al 2013). It also demonstrated a distinct stereotypical relationship between 'managing your money' and

age, income and gender. However, it is plausible that this apparent relationship is a result of the accumulation of knowledge and non-financial resources, which individuals accumulate throughout their working lives known as Social or Human Capital (Mincer and Polacheck 1974). But a longitudinal study using factor analysis to extract relevant factors of financial capability from sixteen years of British Household Panel Survey (BHPS) data, highlighted a significant relationship between Making Ends Meet and Health, Employment and Social Housing (Taylor 2011). This Longitudinal research on household finances has shown that “managing your money” and “making ends meet” are both strongly related to age, employment status and family relationships with the older married couples in full-time work being the most capable, whilst the young single unemployed adults flat sharing with others in a similar position, being cause for serious concern (Taylor 2011).

Atkinson’s findings identified four elements that together resulted in an individual’s financial capability. These were Managing Money: The ability to manage and keep track of day to day expenses; Planning Ahead: The ability to cover potential loss of income, provide for anticipated major expenses and make adequate provision for retirement; Staying Informed: The ability to know the key features of the products they hold or need, keep abreast of changes likely to impact on their finances and be able to deal with problems when they arise: and finally, Choosing Products: The ability to identify the best value financial products, procure the products most suitable for them and understand the “small print”.

The two elements, Making Ends Meet and Keeping Track were separated in von Stumm’s (2013) study. It was noted that Making Ends Meet and Keeping Track were skills that the more impoverished individual was most proficient at and should be noted as a separate

element of financial capability. To an individual with a low or irregular income these skills are paramount as a small change in income has a large impact both practically and emotionally (Layard 2006).

Planning Ahead and Staying Informed were also selected by von Stumm et al (2013) in their study of individuals experiencing adverse financial events but they omitted Choosing Products. Considering the complexity of the product market, the emphasis of the FSA on the need for Independent Financial Advice for consumers and the major compensation issues related to the mis-selling of endowment policies and PPI (Atkinson et al 2007) one could question this decision. The omission of such a relevant concept to current financial decision-making for the individual seems ill-conceived. This study will therefore be including five elements to assess an individual's financial capability. Splitting Managing Money into the two elements, Making Ends Meet and Keeping Track, whilst maintaining the inclusion of Choosing Products.

The hypothesis that there is an interaction between Financial Capability and Money Attitude is strongly supported by research suggesting that financial capability is impaired by intrinsic psychological attributes and deep seated cognitive biases (DeMeza et al 2008). De Meza, whilst agreeing that financial capability involves knowledge and skills believed that psychological rather than informational differences might explain Atkinson's findings. If this is the case then the intervention's recommended by the FSA in the Government's Long-Term Strategy, even if implemented meticulously, may still prove ineffective.

2.3 Money Attitudes

Personal financial decision making is a complex, dynamic and emotional process. Whilst Financial Capability is the cognitive partner Money Attitude is the emotional one and together they enable the individual to make financial decisions (von Stumm et al 2013).

Money is simply a tool identified by its purpose but Money Attitude is the psychological significance and symbolism an individual attributes to their money. However, the meaning of money appears to be different to each of us, with the source of the funds carrying irrational importance (Furnham and Argyle 1998). The value placed upon it impacts significantly upon our behaviour and resultant lifestyles (Lea et al 1987). Overall there are psychological, behavioural and cultural patterns that have developed, which adversely affect our general ability to manage money effectively (Goldberg and Lewis 1978).

Why do we make irrational, immoral and bizarre financial decisions, whilst others develop strong emotional ties to their money and its usage (Goldberg and Lewis 1978, Forman 1987)? There have been a number of empirical studies which have attempted to identify individuals' attitudes to money and their determinants, with varied results. The many attempts at formulating a Money Attitude Scale (MAS) by undertaking surveys have also failed to reach any true consensus.

In developing these MASs the authors have each allocated names to the attitudes uncovered which reflect the culture at the time. Conclusions vary, with suggestions that there are differences in attitude emanating from work experience, sex, and socio-economic status (SES) (Wernimont and Fitzpatrick 1972); gender (Rubinstein 1981); income, age, gender and education (Furnham 1984); sex, economic status, experiences, associates, employment situation, and personality variables (Tang 1995); and age, perception of wealth, religiousness and political beliefs (Furnham and Okamura 1999). One study, which concluded that Money Attitudes are independent of Perception of Wealth believed their results could be used clinically to resolve gender relationship issues (Yamauchi and Templar 1982). But they all have identified a number of emotional

attributes that demonstrate a general consensus. Whilst psychopathological, impulsive reactions to money create Spenders or Hoarders (Lea and Webley 2006) the four most common unique money associated emotions from prior research are Power, Love (generosity), Freedom and Security (Furnham, Wilson and Telford 2012). Power and Love creating Spenders, and Freedom and Security creating Hoarders. However, money pathology repeatedly referred to as Anxiety resulting from distrust and fear of money, was identified as a factor of influence and possibly a fifth Money Attitude, although it hasn't received popular acclaim (Goldberg and Lewis 1978, Yamauchi and Templar 1982, Furnham and Okamura 1999).

In 1978 Goldberg and Lewis wrote *Money Madness* an interesting book in which they address money pathology and neurosis. They suggest that psychologically we use money to satisfy four basic human needs: Power, Love, Freedom and Security. They then proceed to explain in depth the behaviour of "The Power Grabbers", "The Love Dealers", "The Autonomy Worshippers" and "The Security Collectors". Whilst the notion that we are all suffering from "Money Madness" is somewhat entertaining, Goldberg and Lewis have uncovered something of interest. It has been shown that people who are educated and very capable, still unashamedly profess and exhibit, lack of prowess in dealing with their personal finances (Goldberg and Lewis 1978, Lea and Webley 2006).

This study is therefore intending to use the money attitudes of Power, Love, Freedom and Security in order to clarify the relationship with financial capabilities and socio-economic factors that result in an individual's ability to make effective financial decisions.

2.4 Socio-Economic Factors

There appear to be few data on the impact of socio-economic factors on financial decision making. Some areas such as debt and savings are increasing in interest but there have been no thorough studies that have achieved any credible and validated conclusion. Financial problems are attributed to social, economic, behavioural, psychological and demographic factors (Lea et al 1995, Livingstone and Lunt 1992). To date most studies attribute differences in both financial capability and money attitude to age, gender, income and education (Rubinstein 1981, Taylor 2011, von Stumm et al 2013). Other studies into over indebtedness simply refer to poor financial capability and weak money management (Lea et al 1993;1995, Livingstone and Lunt 1991). Obversely, others report that high levels of financial literacy and financial capability are associated with better financial decision making (James et al 2012).

Individuals develop over time and are influenced by their surroundings and experiences. The accumulation of this knowledge is often referred to as Social Capital (Mincer and Polacheck 1974) and has been identified in some research as a factor in the development of financial capability (Tang 1995). By the age of seven the foundations are laid and a child's attitude to money may well already be embedded (Piaget 1964) (Kahneman (2012). In order to conduct a thorough investigation to determine the factors that truly influence or determine an individual's financial capability and money attitude new methodical research is needed. This will entail researching social, economic, behavioural, psychological and demographic factors. Social factors such as family background, culture, position in family, number of siblings, parents, family affluence or poverty and beliefs are likely to have influence (Lea et al 1995).

Personality and behaviour has been identified as a key factor influencing decision making (Chaplin et al 1988). Behavioural Activation and Inhibition Systems (BAS and BIS) are neuro-behavioural systems thought to incentivise or deter an individual and have been measured in relation to money (Marshall 2003). Other behavioural factors such as trait theory which describes the five broad personality traits of extraversion, agreeableness, openness, conscientiousness and neuroticism could be of interest (Goldberg 1990; 1992). This is a highly corroborated international model (McCrae and Costa 1997), which may be instrumental in financial decision making, especially in choosing products, assessing exposure to risk, control and appropriate use of credit, income generation and intertemporal decisions. This may be undermined by an individual's inability to control their expenditure, such as, falling foul of impulsivity (Thaler and Shefrin 1981), the ability to differentiate between need and want (Lea et al 1992), engage in status driven expenditure (Livingstone and Lunt 1991) or belief in an external locus of control (Rotter 1990).

Previous literature has identified many socio-economic factors that are likely to be determinants of an individual's money attitude and financial capability. This study includes income, wealth, ethics, numeracy, beliefs (religiousness), relationships, culture, personality/behaviour, education, motivation, occupation and social-class.

Age and gender have been omitted in the original plan, as these are the two factors that have been researched most extensively to date with the outcomes appearing somewhat stereotypical and lacking appropriate consideration, and may therefore be subject to bias (Greenwald and Banaji 1995). These results could be due to other coincidental factors such as, social-class, motivation and occupation. Due to the sensitive nature of surveys on personal finances the outcomes, especially from more vulnerable groups,

they could also be subject to social desirability bias with individuals not wishing to appear incompetent (Krumpal 2013).

Although von Stumm et al (2013) concluded that money attitudes were not significantly affected by socio-economic factors, they were only considering the two factors income and age, it is hoped to attribute other factors as determinants of money attitudes.

Income is different to wealth, with high earners often engaging in higher levels of debt because they can access it and repay it, whilst working. Consideration of preparing for an adverse financial event, such as job loss, is a decision unrelated to level of income. The only difference being that high worth individuals have the option to liquidate other assets in order to relieve debt if it becomes too costly or unmanageable (Cameron and Golby 1990). This results in high earners with a low financial capability being unable to respond effectively and in a timely fashion to sudden adverse changes in their financial circumstances. In this study the data relates to annual gross household income, which includes benefits as well as earned and unearned income.

Perception of Wealth is a subjective judgement of an individual's understanding or belief of how wealthy they feel compared to others. But Perception of Wealth by others and by self is measured by a variety of means depending upon culture and country but is intrinsically linked to assets, debt and access to cash. Interestingly it appears that those with positive net wealth are perceived as wealthy measured by the level of debt whilst those with negative net worth are measured by the level of assets held, despite the large debt. This misperception may well account for the current explosion of personal credit card debt (Monticone 2010, Sussman and Shafir 2012). In this study Perception of Wealth is assessed by asking respondents three questions to estimate their assets. Due

to the lack of data available this is an area of weakness, as this estimate of wealth fails to reflect the individual's feelings.

By ethics we are referring to the morality of the individual to believe they should honour their financial commitments and adopt a responsible attitude to finance rather than entering into county court judgements (CCJ) or declaring bankruptcy, which is becoming a more common option (Lund 2016). Finally, education is a popular factor but numeracy is the more relevant topic and these do not necessarily go hand in hand (Goldberg and Lewis 1978). This study has analysed data on age, income, social class, education, occupation, religiousness and political belief.

Chapter Three –Methods of Data Collection

3.1 Methodological Rationale

This research aims to study the relationships between perception of wealth and other socio-economic factors that an individual has encountered, as identified in this study, with their resultant attitudes to money, financial capability and financial decision-making ability.

This study is adopting a realist ontology and positivist epistemology as this is the dominant position underlying survey research methods (Easterby-Smith 2015), is most suitable to address the research questions within the imposed time restraints of this MRes dissertation and is compatible with my personal philosophical position.

The study could have been conducted with a qualitative constructionist approach. A number of one-to-one interviews would provide the views and experiences of those interviewed but in view of the lack of empirical research in this area it would lack validity. Studies of this nature would need to be undertaken with sub-groups of special interest in order to provide useful conclusions and increase understanding, such as over 65s ARCP (asset rich cash poor) (Hean et al 2013). My preference would be a mixed methods Explanatory Sequential Design approach (Creswell and Plano Clark 2011) due to the possible complexity of the relationships. This is where an initial quantitative survey is undertaken and then followed up with one-to-one semi-structured interviews in order to provide explanation for the relationships or patterns uncovered. Unfortunately, due to time constraints this more thorough approach cannot be considered for an MRes dissertation but will be investigated further for future studies.

3.2 Research Method

To achieve the research objectives, complex data are required for collection and analysis. Access has been granted to existing secondary data consisting of nearly 110,000 responses to an on-line survey conducted in 2011 which collected data on individuals, their emotional attitudes and behaviours towards money, financial knowledge, understanding and decision-making.

The questionnaire consisted of 189 questions of various types. There were seventy-six YES/NO questions, fifty-three multiple choice questions with answers to be selected from a menu and sixty questions requiring an answer on a Likert type scale, usually from strongly agree to strongly disagree. However, the Likert type questions varied with seven (ten questions), five (thirty questions), or four (twenty questions) boxes to tick. This was a lengthy questionnaire with this variety of answer type possibly assisting in maintaining the full attention of respondents and reducing the bias encountered by bored automatic responses (Galesic and Bosnjak 2009).

This questionnaire consists of twelve separate sections, each designed to measure one particular aspect that could impact upon an individuals' financial behaviour. These are:

1. Socio-economic and demographic data; Questions 1 to 15 - multiple choice
2. Money Pathology; Questions 18 to 42 - YES/NO
3. Money attitudes; Questions 43 to 58 - Five-point Likert scale
4. Emotional regulation; Questions 59 to 68 - Seven-point Likert scale; Agree to Disagree
5. Social anxiety; Questions 69 to 98 - YES/NO
6. Financial Knowledge; Questions 99 to 108 - multiple choice

7. Behavioural Inhibition Systems (BIS)/Behavioural Activation Systems (BAS) motivational scales; Questions 109 to 128 - Four-point Likert scale; True to False
8. Impulsive spending; Questions 129 to 133 - Five-point Likert; scale Agree to Disagree
9. Financial Planning; Questions 134 to 144 - mainly Five-point Likert; scale Agree to Disagree
10. Adverse financial events; Questions 145 to 157 - YES/NO
11. Personal perception of wealth; Questions 158 to 160 multiple choice
12. Financial Capability; Questions 164 to 189 mainly multiple choice with eight YES/NO.

For a full list of questions see appendices 1, 2, 4 and 5.

A sample of individuals who have reported experiencing an adverse financial event in the last five years, has been specifically extracted as a “total population” purposive sample in order to identify any common traits or behaviours that could imply causality and provide pertinent answers to the research question posed. Developing an understanding of the relationship between perception of wealth, financial capability, money attitude and financial decision-making in people who have suffered financial distress. Although this technique is more commonly used in qualitative analysis it has been deemed suitable in this study as the smaller sample, and total population of those experiencing an adverse event, is still large enough, with 33,715 respondents, to conduct appropriate quantitative analysis.

The number of people suffering financial difficulties in the UK is less than seventeen percent of the country’s adult population (MAS 2015). Extracting a smaller purposive sample may highlight factors that in larger surveys might have been overlooked as

insignificant as the percentage experiencing insolvency or repossession of goods would be less than 1% (von Stumm 2013).

Using this dataset of 109,472 respondents as the main sampling frame, a quantitative study was undertaken extracting a purposive sample of all respondents who self-selected as experiencing an adverse financial event. Seven of the 189 questions (Numbers 145 to 151 inclusive) asked respondents if they had experienced specific adverse financial events with a YES/NO response (Appendix 1). All respondents who answered yes to any one of these questions were selected, giving a purposive sample of 33,715 respondents who reported that they had experienced an adverse financial event in the previous five years.

The seven questions indicate various adverse events, some serious such as bankruptcy and repossession of the home whilst others indicated minor adverse events such as missing a due payment. One could question whether or not this approach enables the extraction of a relevant purposive sample. It could be argued that only the four questions relating to the more serious adverse events should be used as many respondents not in real financial difficulty, but lacking basic financial planning skills, may occasionally “miss a loan payment”, mistakenly apply for inappropriate credit and get refused or suddenly find themselves in unexpected overdraft. Poor financial planning ability does not necessarily equate to financial difficulty. These questions relating to the less serious adverse events could actually have been worded better so as to exclude those individuals who had simply slipped up. Tests were therefore conducted on the two sub-samples; those reporting the most serious financial distress of bankruptcy and those reporting one adverse event of missing a loan payment. In case the latter had not experienced true financial distress. As no significant differences were found the

inclusion of those with the less serious adverse events was accepted as sufficiently robust.

In order to examine the relationship of perception of wealth and other socio-economic factors to financial capability and money attitude SPSS software has been employed. To be able to use SPSS the survey question nominal responses need to be transformed into comparable and usable numerical scales. Where answers are dichotomous the answers have been numbered 1 or 0 then totalled to give an overall scaled score for each respondent. For Likert type questions answers have been numbered and totalled to give an overall scale score per respondent for any one category and for multiple choice answers have been averaged.

Perception of wealth was examined by factor analysis and by averaging scores. As there was a 96% correlation it was felt that both methods produced a viable result.

3.3 Ethical Considerations

For this dissertation, I am using secondary data obtained originally by the Open University in conjunction with the BBC, Watchdog, for a study known as the Big Money Test. This data whilst reported on publicly is not in the public domain. Therefore, prior to using this data I have obtained permission from the data controller for their use and have agreed to comply with any research governance procedures required. Anonymity will be maintained and the data is stored on an Open University server.

The secondary use of this dataset should be uncontroversial, however in order to give careful consideration to the ethical risk of this research, as it does involve the reuse of data collected from human participants, I submitted a formal request to the Chair of the Open University Ethics Committee. As a result, this research has been given a favourable opinion by HREC Chair's action.

Chapter Four – Collecting and analysing the Data

4.1 The Sample

In 2011 one of the largest studies into Money Psychology, called The Big Money Test, was undertaken by the Open University in conjunction with the BBC and University College London, 109,472 people in the UK responded to this on-line survey completing 189 questions related to money and individual factors that could affect its management. The survey is unique in that was linked to a BBC Watchdog programme aired at prime time to the whole of the UK. It is a popular programme and was specifically investigating personal money management issues. It would therefore have attracted a wide audience with varying reasons for choosing to watch this type of programme. The survey was directly linked and promoted by the programme and is responsible for the large number of respondents. It is argued that due to the popularity of the programme and the mode of presentation and personal feedback offered that the respondents to this survey were wider than the usual type of survey respondent and are more representative of the UK adult population but possibly include a larger number of those experiencing financial difficulties. It is agreed that the respondents are still limited by many other factors; to those who have access to IT, watched or heard of the programme, are interested in feedback on their finances and can be bothered to complete a long survey, amongst others. Of the 109,472 respondents to the Big Money Test, 33,715 identified as having experienced an adverse financial event in the last five years. These self-selecting respondents compose a purposive sample representing adults in the UK who have experienced an adverse financial event and have been extracted in total for use in this study.

A few basic socio-economic details were established for this purposive sample of adults experiencing at least one adverse financial event in the last five years used in this study, of which 1,849 (5.5%) experienced the major adverse financial event of bankruptcy or home repossession, and are as follows:

- 14,691 (44%) reported to be male and 19,024 (56%) reported to be female. Although this is fairly representative of the UK population we have a slighter higher female representation. According to ONS data for 2011 the adult population (i.e. those over 16 years of age) was 49% male and 51% female.
- The majority of respondents (89%) reported to be white or mixed race (just one category in the questionnaire) with 8% of various Asian extractions.
- 50% have a BA degree or higher with only 5% reporting no qualifications.
- 60% report being in a long-term relationship, of the remaining 40%, 30% live alone and 10% are in short term relationships.
- 64% had one or two siblings whereas 10% were the only child.
- 29% had a household income of less than £20k p.a., 46% earned between £20k and £50k with 19% earning more than £50k. The difference being respondents who preferred not to say.
- 37% of household heads held professional or high admin posts. 26% were in clerical or skilled or semi-skilled posts, 29% in unskilled posts and 8% unemployed.
- 55% of respondents had one dependent, 18% had 2, 15% had 3 and 12% had 4 or more.
- 62% called themselves working class, 38% middle class and 0.3% upper class.

- 22% said they were right wing, 53% had no political affiliations and 25% said they were left wing.
- 62% reported no religious affiliations, 30% had religious beliefs and 8% reported devoted religious beliefs.
- 35% of respondents reported a pessimistic outlook for their personal financial future, whereas 58% felt the UK's financial future was bleak. 28% felt their personal future and the country's would be unchanged. However, 37% of respondents felt optimistic that their financial future was improving but only 14% looked at the future of the UK with any optimism.

4.2 Measures

4.2.1 Socio-economic factors

The questionnaire was specifically related to money but a number of basic socio-economic and demographic questions were asked. These included gender, age, ethnicity, education, relationship status, number of siblings, household income, occupation of the head of the household, number of dependents, social class, political affiliation, religious intensity and financial outlook. All factors available were examined but education, income and social class proved to be significant factors pertinent to the research questions posed.

For analysis in this study respondents have been grouped into seven age bands of ten years from >15 to <26 etc up to the final group of those >75 (Figure 2). The mean age of the sample is 35.45 years with males averaging 35.27 and females 35.59 (Table 1). The sample was adjusted excluding respondents who reported ages <16 years and >100 years.

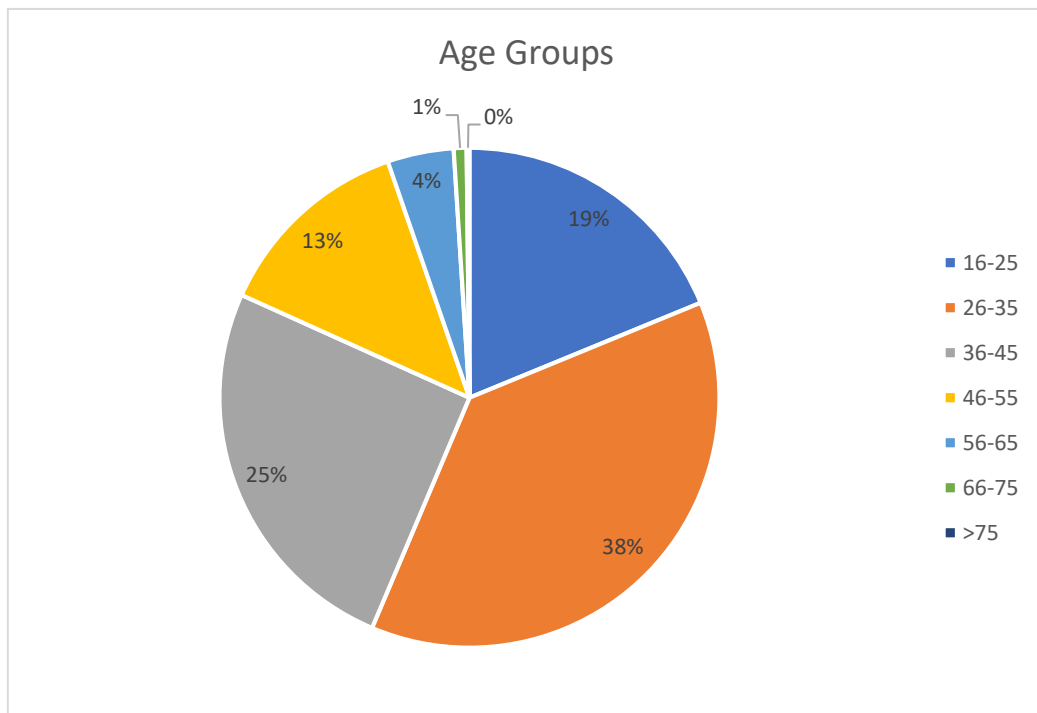


Figure 2 Age

What is your gender?		N	Minimum	Maximum	Mean	Std. Deviation
Male	Age	14643	16	91	35.27	11.086
	Valid N (listwise)	14643				
Female	Age	18953	16	100	35.59	10.617
	Valid N (listwise)	18953				
Both	Age	33596	16	100	35.45	10.825

Table 1 Age descriptives

Ethnicity was asked but the question was unclear, did not confirm to standard categories, failed to produce any sufficiently robust data and was therefore not used. 89% of respondents selected the single category for white and mixed race. This should have been separated into three categories, White British, Other White and Mixed Race (ONS 2011). The remaining categories offered were: Asian, Pakistani, Bangladeshi, black British, African, Chinese and Middle Eastern, Turkish and other. These did not conform to the Office for National Statistics (ONS) categories or those of the Commission for

Racial Equality (CRE) and fail to assist in analysing traits in the ethnicity of respondents. The ONS data for 2011 shows that the “Other white” category demonstrated a large significant increase in the preceding decade, presumably due to Eastern European immigrants, a factor that may have been interesting to measure as poor financial capability can be related to lack of good specialised English such as financial terminology (Sherraden 2013).

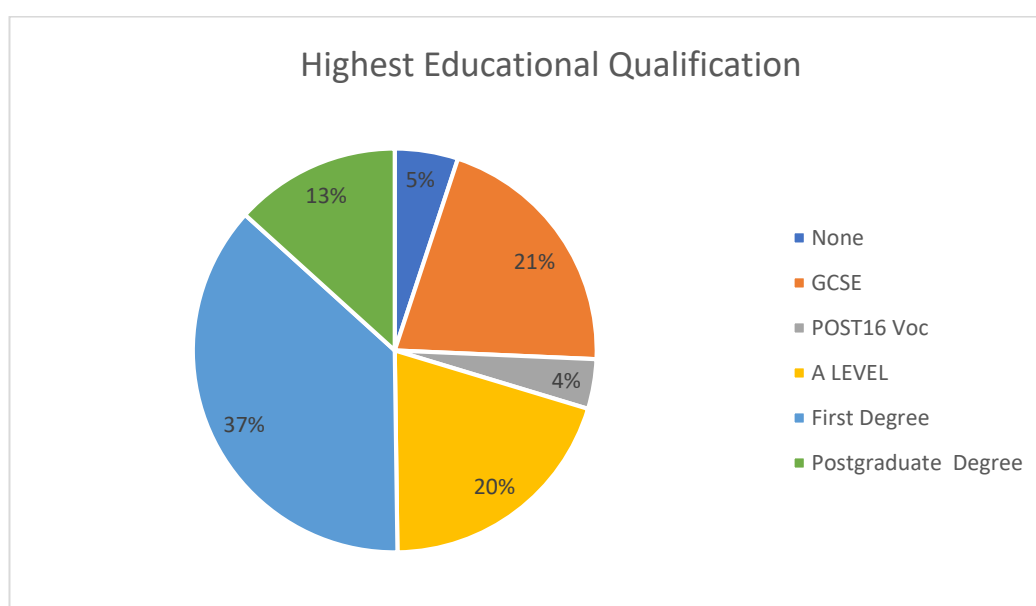


Figure 3 Education

Education (by the highest educational qualification) was grouped into six categories asking if they had completed the following qualifications or the equivalent: postgraduate degree; undergraduate degree; A-levels; GCSEs; post 16 vocational; had no qualifications (Figure 3). This shows that 50% of respondents were graduates.

There were ten relationship categories: married, Long-term relationship, civil partnership, divorced and remarried, widowed and remarried, single, short term relationship, widowed, divorced, and separated. The results show that 40% of respondents were living alone whilst 60% were living as couples in long term relationships.

The question asking the number of siblings had seven numerical categories rising from none to six plus. The results show that 10% of respondents were “only children” and 78% had between one and three siblings.

Total gross household income had eight categories: less than £10k, £10k to <£20k, £20k to < £30k, £30k to < £40k, £40k to <£50k, £50k to < £75k, £75k to < £150k, ≥ £150k (Figure 4). This shows that in this sample of respondents, all experiencing adverse financial events, over 45% were earning at least £30,000 p.a., which is more than the £27,006 p.a. median national family income in the UK for the same year (DWP, FRS 2012).

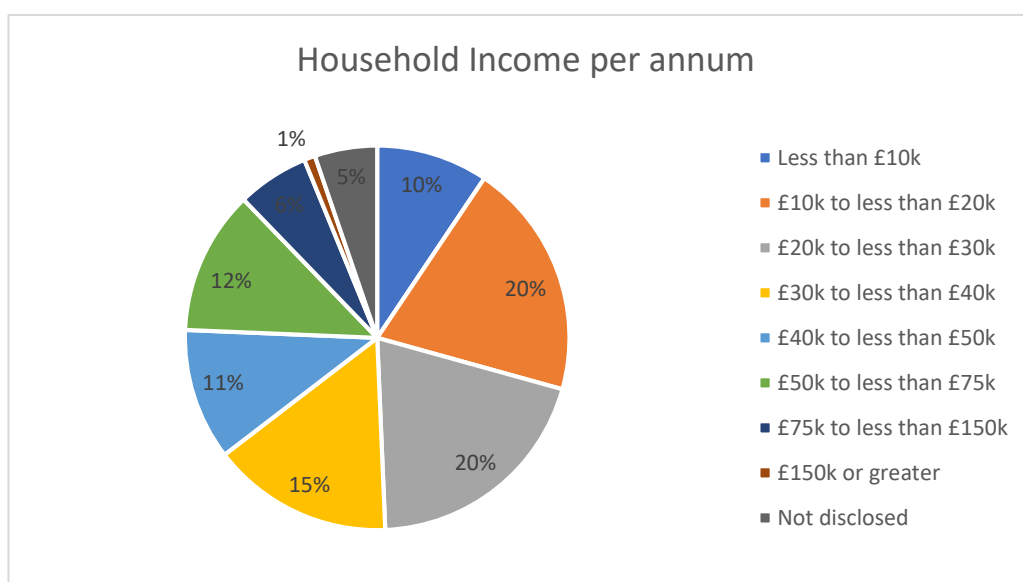


Figure 4 Household annual income

Occupation of the head of household (defined as the highest wage earner) had ten categories: professional, high admin, clerical, sales, service, skilled, semi-skilled, unskilled, farm, other (Figure 5), 37% reported as having professional or high administrative roles.

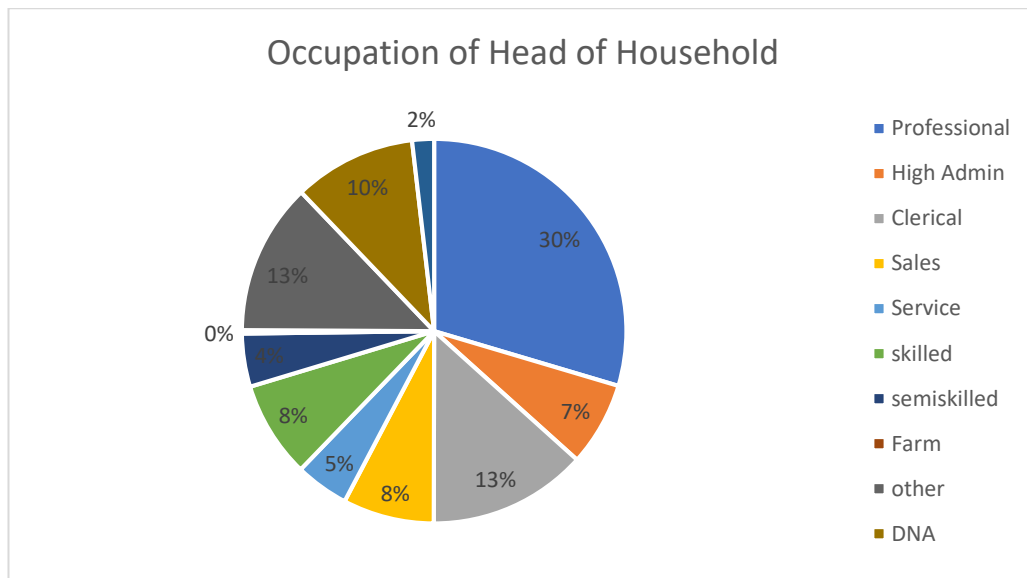


Figure 5 Occupation

The question asking the Number of people wholly dependent on the household had seven categories from none to six plus, with 55% reporting no dependents and 32% one or two.

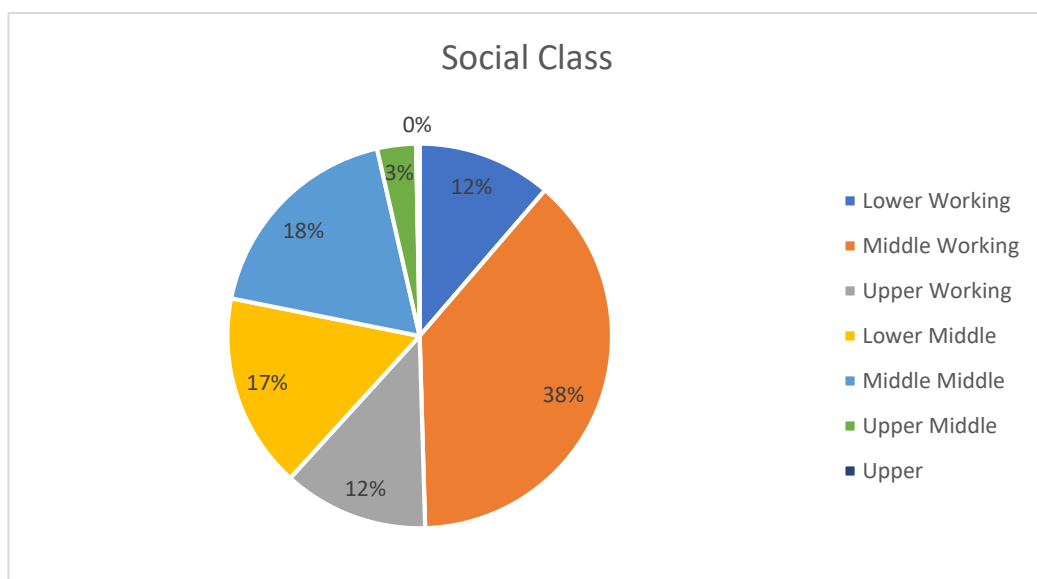


Figure 6 Social Class

To which social class do you identify yourself as belonging? had seven categories, three working class, three middle class and one upper class, with working and middle class being split further into lower, middle and upper (Figure 6).

Recent research shows that most people have some difficulty identifying their social class, often relating it to their upbringing and not their current position. As a result, many who identify as working class were earning three times that of the average middle class. Recent research suggests seven new categories based on research originally by Pierre Bourdieu which relate to the individuals' economic, social and cultural wealth to determine their social position might be a more suitable and reliable tool (Savage et al 2013). Irrespective of the scale used, to obtain more reliable class data guidance should be issued to respondents.

Political orientation had a ten-category scale from extreme left wing to extreme right wing with respondents being invited to indicate where on that continuum they lay, 76% of respondents selected the middle four categories.

Religiousness was approached in the same way. A ten-point scale from, Not at all religious to Extremely religious. In this case only 30% were in the middle four categories with 62% selecting the three categories towards the "Not at all religious" end.

Two questions asking: How optimistic are you about your personal financial future, and that of the country's also had ten-point scales from very pessimistic to very optimistic.

	Pessimistic (top 3 categories)	Non-committed (mid 4 categories)	Optimistic (bottom 3 categories)
Personal Future	24%	56%	20%
UK's future	40%	54%	6%

Table 2 Financial Pessimism

The pessimistic outlook for the country is interesting and raises the question of whether or not people in financial difficulties have a true belief in an external locus of control (Rotter 1990).

4.2.2 Financial Capability

Financial Capability was assessed using the twenty-six multiple choice Likert type questions from Atkinson et al. 2006. (See appendix 2 for these questions.)

As an individual's financial capability is composed of varying proportions of the five elements Planning Ahead, Choosing Products, Staying Informed, Making Ends Meet and Keeping Track (Atkinson et al. 2007, von Stumm et al. 2013), their Financial Capability score was calculated by totalling the average score for each of the five elements. To obtain a score for each of the elements from the multiple-choice questionnaire required some adjustment to ensure equal weighting of each element and accurate interpretation of responses. The answers were ranked 1 – 5 to indicate compliance. Where there were more than five options the responses were recalibrated to be a number from one to five but to accurately indicate the element of capability being tested and remove any inconsistencies with "Don't Know" answers. Each of the five elements of financial capability, after adjustments, are equally weighted at 20% and the individual could be given a total financial capability score out of 100 (von Stumm et al 2013). For details of the specific adjustments see appendix 3.

4.2.3 Money Attitude

Money Attitude was assessed using the sixteen Likert type questions from Furnham et al. 2012, which ask how strongly you agree or disagree with statements like; "I'd rather save money than spend it". (See appendix 4 for these questions.)

Four questions were used to assess each of the four money attitudes; Power, Freedom, Love and Security, making sixteen in total. To obtain a separate score for each money attitude the scores of the four questions for each category was simply collated. As the questions were all scored the same way no adjustments were needed to be able to

obtain the respondents total score for each Money Attitude. Each respondent could achieve a maximum score of 20 for each money attitude (Table 3).

	Q1	Q2	Q3	Q4	SCORE
POWER Q51-54	2	3	3	2	10
LOVE Q55-58	3	4	2	3	12
FREEDOM Q47-50	2	4	3	4	13
SECURITY Q43-46	1	1	1	3	6

Table 3 Example of Money Attitude Calculations

Section two of the questionnaire examined Money Pathology and although not part of this original study a significant negative correlation was observed and included in the findings as a possible fifth money attitude (Anxiety). The extent to which money creates anxiety, fear and neurosis has been highlighted in earlier research (Yamauchi and Templar 1982, Furnham and Okamura 1999). Respondents Money Attitude, Anxiety, was measured by totalling the twenty-five YES/NO money pathology questions (appendix 4) scoring 1 or 0 giving a total Anxiety score.

4.2.4 Perception of Wealth

Perception of wealth is assessed using three questions (Nos. 158, 159 and 160) regarding the respondents' valuation of personal assets; property, investments, savings and other, which ask the respondent "what do you think is the value of?". Responses were collected in eight rising continuous intervals starting with "none". As the responses to each question were rising in value demonstrating increasing wealth, to calculate a measure to represent an individual's perception of wealth the mean of the three responses was calculated. e.g. Responses: 5-1-2 indicate: equity in property between >£250k and <£500k; No savings and less than £500 of any goods they deem to be assets. This individual would therefore achieve a score of 2.67, being 8/3, as their Perception of

Wealth score. Responses of “9” “don’t know” (3.78%) and “10” “rather not say” (3.00%) were adjusted to a score of “1”. Otherwise the calculation would have been overstated. As discussed earlier, the numerical estimate of an individual’s wealth is indicative of their perception of their wealth but fails to capture the more emotional aspect of how they feel. This is a weakness due to the restrictions of the available data and would perhaps be better addressed in further qualitative study.

4.3 Statistical Analysis

The literature, as reported herein, supports the premise that the impact of perception of wealth and other socio-economic factors upon an individual’s financial decision-making ability operate as components of the individual’s financial capability and money attitude. To ascertain whether or not there is any significant relationship between the perception of wealth and financial capability and/or money attitude a number of correlations were performed using the statistical software SPSS. The objectives were to identify any significant relationships and to conduct any statistical analyses to measure the impact thereon. It was decided to use the Spearman’s Rho correlation coefficient rather than Pearson’s as the relationships between the variables are monotonic and may lack linearity. As the Spearman correlation coefficient is based on the ranked values for each variable rather than the raw data it may be more appropriate.

It has been reported that financial capability varies significantly with gender (Taylor 2011, Furnham et al 2014). The data was therefore split by gender and parallel analyses were run, but as no significant differences were found the data used for this study was the combined data. For reference the tables by gender are also included for all correlations in Appendix 7 (Tables 11- 23).

4.3.1 Analysis of Perception of Wealth

To answer the first two research questions two correlation studies were conducted for Perception of Wealth with:

- Financial Capability factors: Making Ends Meet, Keeping Track, Planning Ahead, Choosing Products and Staying Informed; and
- Money Attitude factors: Anxiety, Security, Freedom, Power and Love.

(For full data see Appendix 7, Tables 11 to 16). All significant correlations over 20% with $\rho < 0.01$ have been highlighted in yellow.

			Perception of Wealth Mean	Making Ends Meet	Keeping Track	Planning Ahead	Choosing Products	Staying Informed
Spearman's rho	Perception of Wealth Mean	Correlation Coefficient	1.000	.456**	-.149**	.620**	.236**	.264**
		Sig. (2-tailed)		0.000	.000	0.000	0.000	0.000
		N	33715	33715	33715	33715	33715	33715
	Making Ends Meet	Correlation Coefficient	.456**	1.000	-.001	.657**	.303**	.250**
		Sig. (2-tailed)	0.000		.890	0.000	0.000	0.000
		N	33715	33715	33715	33715	33715	33715
	Keeping Track	Correlation Coefficient	-.149**	-.001	1.000	-.108**	.148**	.193**
		Sig. (2-tailed)	.000	.890		.000	.000	.000
		N	33715	33715	33715	33715	33715	33715
	Planning Ahead	Correlation Coefficient	.620**	.657**	-.108**	1.000	.327**	.312**
		Sig. (2-tailed)	0.000	0.000	.000		0.000	0.000
		N	33715	33715	33715	33715	33715	33715
	Choosing Products	Correlation Coefficient	.236**	.303**	.148**	.327**	1.000	.432**
		Sig. (2-tailed)	0.000	0.000	.000	0.000		0.000
		N	33715	33715	33715	33715	33715	33715
	Staying Informed	Correlation Coefficient	.264**	.250**	.193**	.312**	.432**	1.000
		Sig. (2-tailed)	0.000	0.000	.000	0.000	0.000	
		N	33715	33715	33715	33715	33715	33715

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4 Correlation of Perception of Wealth with the five Financial Capability factors

Financial Capability (Table 4). A significant positive correlation was seen with the four factors, Making Ends Meet, Planning Ahead, Choosing Products and Staying Informed. These four factors were also significantly self-correlated. A small significant negative

correlation was seen with the fifth factor, Keeping Track, which was most strongly correlated with Staying Informed.

Money Attitude (Table 5). A significant positive correlation was seen with Security and a significant negative correlation was seen with Anxiety. The remaining three Money Attitudes, Love, Freedom and Power were all self-correlated.

			POWMean	Anxiety	Security	Freedom	Power	Love
Spearman's rho	POWMean	Correlation Coefficient	1.000	-.270**	.233**	-.046**	-.007	-.027**
		Sig. (2-tailed)		0.000	0.000	.000	.205	.000
		N	33715	33715	33715	33715	33715	33715
	Anxiety	Correlation Coefficient	-.270**	1.000	.004	.219**	.250**	.274**
		Sig. (2-tailed)	0.000		.442	0.000	0.000	0.000
		N	33715	33715	33715	33715	33715	33715
	Security	Correlation Coefficient	.233**	.004	1.000	-.012'	.048**	-.012'
		Sig. (2-tailed)	0.000	.442		.031	.000	.025
		N	33715	33715	33715	33715	33715	33715
	Freedom	Correlation Coefficient	-.046**	.219**	-.012'	1.000	.422**	.252**
		Sig. (2-tailed)	.000	0.000	.031		0.000	0.000
		N	33715	33715	33715	33715	33715	33715
	Power	Correlation Coefficient	-.007	.250**	.048**	.422**	1.000	.397**
		Sig. (2-tailed)	.205	0.000	.000	0.000		0.000
		N	33715	33715	33715	33715	33715	33715
	Love	Correlation Coefficient	-.027**	.274**	-.012'	.252**	.397**	1.000
		Sig. (2-tailed)	.000	0.000	.025	0.000	0.000	
		N	33715	33715	33715	33715	33715	33715
**. Correlation is significant at the 0.01level (2-tailed).								

Table 5 Correlation of Perception of Wealth with five Money Attitude factors

4.3.2 Socio-Economic Factors

Two further correlation studies were then conducted for other socio-economic factors with:

1. Financial Capability factors: Making Ends Meet, Keeping Track, Planning Ahead, Choosing Products and Staying Informed,
2. Money Attitude factors: Anxiety, Security, Freedom. Power and Love.

Financial Capability (Table 18).

There was no significant correlation with Age, Religiousness or Political Orientation. There was a significant positive correlation between Making Ends Meet with Income and Social Class. And between Planning Ahead with Occupation, Education, Income and Social Class. There were also two small but measurable difference in the genders. Males correlated significantly between Education and Making Ends Meet; and between Income and Staying Informed. These are highlighted orange in tables 18-20.

Money Attitude (Table 21).

There was no significant correlation with the four main money attitudes and any socio-economic factor. However, there was a significant negative correlation between Anxiety with Social Class and Income.

4.3.3 Financial Capability Factor Analysis

Financial Capability is the culmination of five separate skills or factors that individuals develop separately. These have therefore been treated as five separate factors, with each factor being calculated by the addition of the answers to the assigned questions. The total for each factor can then be accumulated to calculate an overall assessment financial capability for each respondent.

To verify that there are five separate factors of Financial Capability that can be extracted from the twenty-six questions principal components analysis of the twenty-six financial capability questions (Atkinson et al 2006) was undertaken with Varimax rotation to reduce the variables to a smaller number of latent variables, with the Kaiser-Meyer-Olkin (KMO) test for sample adequacy, which measured 0.859 (exceeding the minimum requirement of 0.7). The Bartlett's test of sphericity for homogeneity of variances

recorded ($\chi^2(26) = 124,765, p < 0.001$), verifying the viability of the data. A scree plot was drawn and eigenvalues greater than 1 were identified (Figure 7).

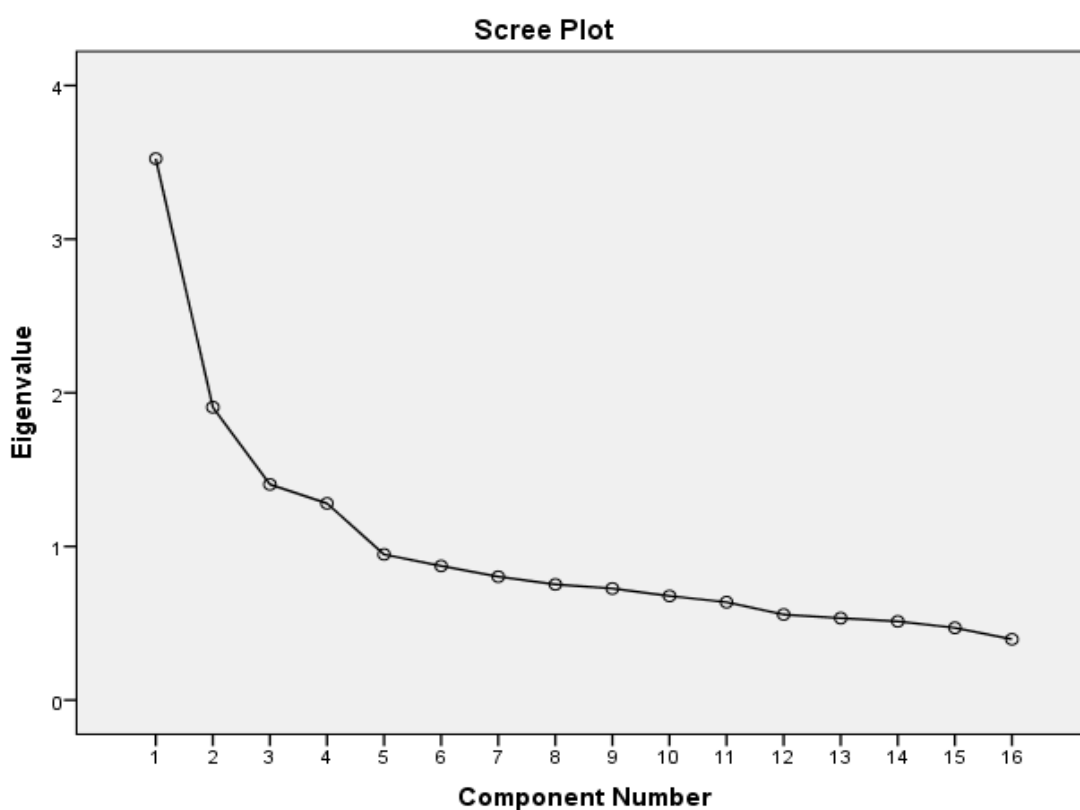


Figure 7 Scree Plot of Financial Capability Rotated Factors

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loading
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
Staying Informed	5.247	20.180	20.180	5.247	20.180	20.180	4.196
Keeping Track	2.868	11.029	31.210	2.868	11.029	31.210	2.471
Making Ends Meet	1.963	7.550	38.760	1.963	7.550	38.760	3.362
Planning Ahead	1.242	4.775	43.535	1.242	4.775	43.535	1.874
Choosing products	1.190	4.576	48.111	1.190	4.576	48.111	2.945
6 excluded	1.004	3.863	51.975	1.004	3.863	51.975	1.151
7 excluded	.936	3.601	55.576				

Extraction Method: Principal Component Analysis.

Table 6 Extraction from table of Financial Capability total variances

Six eigen values were identified but after examination of the rotated component matrix (Table 9, Appendix 6) only the first five were selected as relevant to financial capability, accounting for 48.11 % of the total variance, and supporting the five categories already identified (Table 6).

4.3.4 Money Attitude Factor Analysis

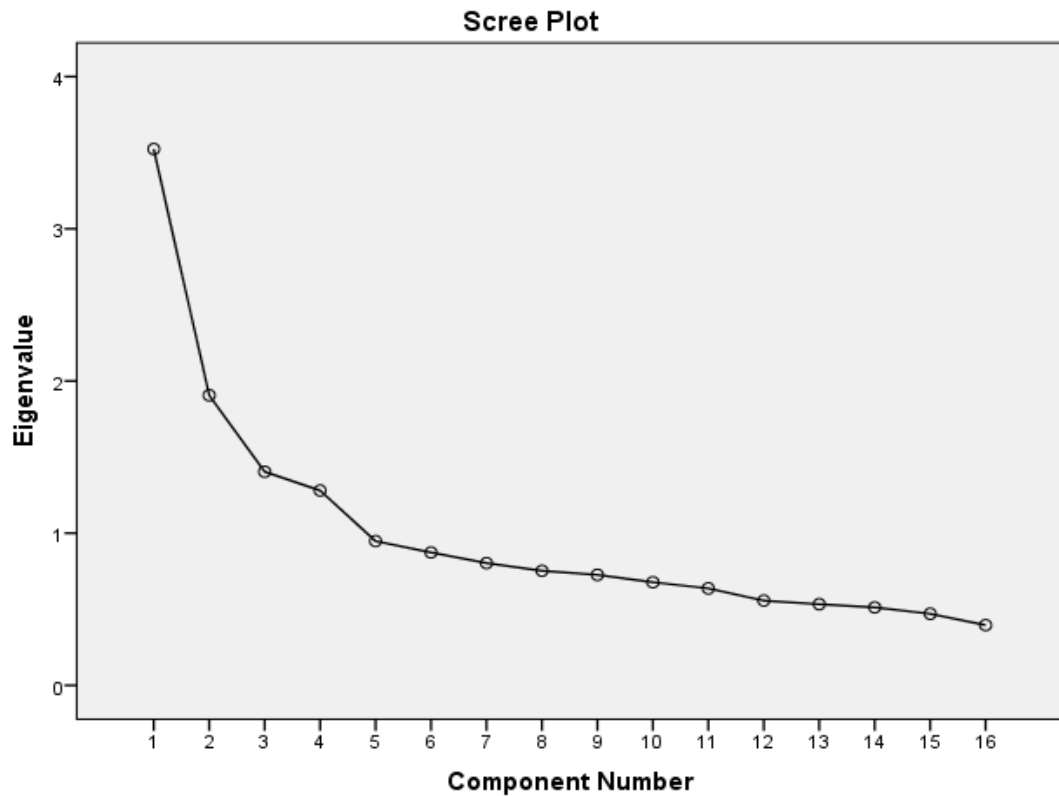


Figure 8 Scree Plot of Money Attitude Rotated Factors

To verify that there are four separate Money Attitudes that can be extracted from the sixteen Money Attitude questions (Furnham et al 2012), these were also subjected to PCA with the KMO = 0.787 and Bartlett test = ($\chi^2(16) = 98,644, p < 0.001$). In this case Direct Oblimin rotation was used as the factors were deemed related and this should give a more accurate interpretation. A scree plot was drawn and four eigenvalues greater than 1 were identified (Figure 8). The factor analysis of these sixteen questions after examination of the rotated matrix (Table 10, Appendix 6), supports the

extraction of four money attitudes that accounted for 50.71% of the total variance and matched the four factors in previous published research (Table 7).

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
Power	3.524	22.026	22.026	3.524	22.026	22.026	3.073
Security	1.906	11.913	33.939	1.906	11.913	33.939	1.890
Love	1.404	8.772	42.711	1.404	8.772	42.711	1.600
Freedom	1.280	8.003	50.713	1.280	8.003	50.713	2.305
5	.948	5.924	56.638				

Extraction Method: Principal Component Analysis.

Table 7 Extraction from table of Money Attitude total variances

All data was cleaned after filtering for anomalies, i.e. respondent age 126, missing data and Z transforming to check for outliers. Assumptions were made over interpretation where answers were conditional but respondents failed to indicate any response i.e. the “does not apply” box was activated.

4.3.5 Financial Decision Making

Although previous literature concluded that the two elements of financial-decision making, Financial Capability and Money Attitude were independent components (von Stumm et al 2011), in this study, strong significant positive correlations were found between the Money Attitude Security with the two elements, Making Ends Meet and Planning Ahead (Table 17). The remaining three original Money Attitudes displayed weak positive correlations that were deemed insignificant. Interestingly the new Money Attitude Anxiety also showed strong significant correlations to Making Ends Meet and Planning Ahead, but negative. Weak negative correlations were also noted between Anxiety and Choosing Products and Staying Informed.

To examine the relationship between Financial Capability and Money Attitude a multiple regression analysis was undertaken. Individuals were allocated a score of 1 to 7 to indicate their financial decision-making ability. This was based on the number of reported adverse financial events as this study is specifically looking at this self-selecting sample. A multiple regression analysis was conducted examining all socio-economic, financial capability and money attitude factors to see if these could significantly predict the individuals' financial decision-making ability. The results of the regression indicated that the model only explained 11.5% of the variance and that the model was not a significant predictor of performance. $F(6,31398) = 691.970, p < 0.001$. Financial Capability (FC) and Perception of Wealth (POW) were the highest contributors with Education (Ed) and Social Class (SC) minor contributors. Income and occupation were insignificant. Financial Decision-Making Ability Score (1-7) =

$$3.179 + (0.225 \times \text{FC}) + (0.122 \times \text{POW}) + (0.066 \times \text{Ed}) + (0.046 \times \text{SC}).$$

It was felt that the method used to calculate an appropriate and reliable dependent variable measure from the available data for financial decision making was weak, the results were inconclusive and further research is recommended. In this attempt using a numerical sum for the outcome of the number of reported adverse financial events, i.e. a score of 1-7, the independent variables only accounted for 11.5% of the outcome.

4.4 Summary of main findings

4.4.1 Perception of Wealth Findings

Perception of Wealth showed a significant strong correlation with the two Financial Capabilities, Planning Ahead and Making Ends Meet but failed to show any strong significant correlation with any other variables. However, it did show a weak significant positive correlation with the two Financial Capabilities Choosing Products and Staying

Informed and the Money Attitude, Security. It also showed a weak significant negative correlation with the Money Attitude Anxiety and the Financial Capability of Keeping Track. These findings, whilst supporting the hypotheses, demonstrate the complexity of the relationship by highlighting the fact that only certain elements are directly influenced. These correlations do not infer causality and further research into these relationships is recommended.

4.4.2 Financial Capability Findings

The Financial Capability of Planning ahead showed a strong positive correlation, with Income. The remaining correlations were significant but weaker. Positive correlations were found between Making Ends Meet with Income and Social Class; and between Planning Ahead with Occupation, Education and Social Class. There was a significant correlation between four of the components of financial capability, namely; Planning Ahead, Making Ends Meet, Staying Informed and Choosing Products. Keeping Track reported weak but significant correlations. Its strongest was a positive relationship to Staying Informed with weaker negative relationships to Planning Ahead and Choosing Products. There was no significant relationship to Making Ends Meet. Keeping Track also showed a weak negative correlation with Occupation, Income, Education and Social Class.

The Factor Analysis of the Financial Capability questions extracted six factors from the survey questions. The five strongest complied with and verified the selected components of Financial Capability (Table 9). A sixth value of 1.004 was reported but this related to one question asking about bank statements that has been included in “Keeping Track”. It was decided that this sixth factor failed to add any significant information.

4.4.3 Money Attitude and other Findings

There were no strong significant correlations with any of the Money Attitudes. The Money Attitude Anxiety had two weak negative correlations with Income and Social Class but was not correlated with any of the other Money Attitudes. There was a significant correlation between the three Money Attitudes; Freedom, Power and Love.

Of the socio-economic factors Education, Income, occupation and social class reported a strong significant positive self-correlation. Political Orientation and Religiousness were not significantly correlated with other factors, and Age was only weakly correlated with Perception of Wealth.

The Factor analysis of the Money Attitude questions extracted four values, which verified the four selected Money Attitudes of Power, Love, Freedom and Security (Table 7). Questions that may have identified “Anxiety” were not included. This is an area for future development.

The socio-economic factors of Occupation, Education, Income and Social Class were strongly self-correlated.

Chapter Five – Interpreting the Data

5.1 Introduction

Using a large secondary data source introduces problems of interpretation and understanding. The first step was to examine all survey questions asked, to determine their relevance to this research, to group the questions and determine the theories that they were investigating. The next step was to look at the types of answers to consider their compatibility with statistical treatments. There were twelve groups of questions as listed in section 4.3 all of which may influence an individuals' financial capability, with a mixture of nominal, ordinal and scale answers. In order to conduct correlations, regressions and factor analyses these would need to be transformed into comparative numerical scales.

To address the specific research questions the survey questions needed to be analysed in four specific sections; socio-economic and demographic data, Money attitudes, Perception of Wealth and Financial Capability. However, other areas were considered worth looking at as they may impact upon this research or may highlight future areas of interest on the issue of financial decision making.

5.2 Money Attitudes

Research has identified an emotional context to the use of money. Although money itself has no value except that imbued upon it by society many individuals crave more money and believe that this will solve all their life problems (Goldberg and Lewis 1978). The psychological significance and symbolism an individual attributes to their money is known as their Money Attitude (Furnham and Argyle 1998). Whilst many attempts to formulate a money attitude scale (MAS) have failed to achieve an agreed goal, there has been general agreement that the four emotional needs; security, power, love and

freedom determine our attitude to money (Yamauchi and Templar 1982, Furnham and Argyle 1998). We are all unique individuals but by answering the sixteen “Money Attitude” questions included in this survey it is believed possible to determine the respondents’ main attitude to money and quantify the influence of each of the four emotions on that individual’s financial decision making (Furnham et al 2012).

The analysis, however, does not demonstrate a simple support for the hypotheses in this study but points to a more complex, and perhaps unique, interaction. It shows a significant positive correlation between the Money Attitude of Security, Perception of Wealth, and the Financial Capabilities of Making Ends Meet and Planning Ahead, which could be explained as; individuals who are concerned with their well-being would be well organised planners, keeping their finances under control and saving their money as the opportunity arises (Furnham and Argyle 1998, Furnham et al. 2012).

The individual’s perception of wealth may, however, fail to reflect their true wealth. i.e. £50 to someone impoverished could be a life changing sum and they may feel very wealthy, whereas the same sum to someone affluent is irrelevant pocket change (Layard 2006). Whilst the results imply causality there is no implication of direction or hierarchy.

The Money Attitude Security appears to be the odd one out as the Money Attitudes of Freedom, Power and Love are significantly positively self-correlated and not significantly correlated to any of the Financial Capabilities (von Stumm et al. 2013). Money Pathology, which could contribute to a new Money Attitude Anxiety is not only significantly correlated with these three Money Attitudes but also with the three financial capabilities, Making Ends Meet, Planning Ahead and Choosing Products.

This adds further credence to the possibility that behaviour is also a strong influence on Money Attitudes (Furnham and Okamura 1999, Marshall 2003) but warrants further investigation.

This research has failed to show strong support for the hypothesis that there is a relationship between Perception of Wealth and Money Attitude in this sample of adults in the UK who have experienced an adverse financial event. Although there is a weak positive correlation with Security and a weak negative correlation with Anxiety. Further research is required to determine the effect of any behavioural influences.

5.3 Financial Capabilities

Financial capability is a complex accumulation of skills and behaviours (Johnson and Sherraden 2007) but recent research has attempted to simplify this complexity by identifying five separate factors, Making Ends Meet, Keeping Track, Planning Ahead, Staying Informed and Choosing Products, that together compose financial capability. These factors are separate skills that individuals can acquire during different periods of development and in different ways. This results in individuals accumulating various ranges of abilities within the spectrum of financial capability (Atkinson et al. 2007). This study therefore examined all five financial capabilities using the twenty-six questions included in this survey and identified from earlier research (Atkinson et al 2007).

Interestingly, analysis showed a significant positive correlation between six factors; the financial capabilities of Making Ends Meet, Staying Informed, Choosing Products and Planning Ahead, the Perception of Wealth and Social Class. The financial capability of Keeping Track however, showed a significant weak negative correlation with both the Perception of Wealth and Social Class.

There was no significant correlation with age or gender as previous research has reported (Atkinson et al 2006, Taylor 2011, Furnham et al 2014).

These findings, from a sample experiencing adverse financial events, support previous research that suggests that people on low incomes and tight budgets have by necessity developed good financial capability skills of Making Ends Meet, Keeping Track and Planning Ahead (Atkinson et al 2006, Taylor 2011, von Stumm et al 2013). The negative correlation for Keeping Track suggests that as individuals become more affluent the need to keep track diminishes as the necessity for keeping a tight rein on low levels of income reduce, due to the relative value of necessities to one's overall income (Yamauchi and Templar 1982). It is likely that more affluent individuals keep track of finances at an enhanced level of magnitude.

These findings, therefore, support the suggestion that individuals' financial capability is independent of Money Attitudes other than Security, improves with Perception of Wealth and Social Class but the necessity to Keep Track of small sums reduces as they become more affluent.

This study therefore supports the hypothesis that there is a relationship between Perception of Wealth and Financial Capability in this sample of adults in the UK who have experienced an adverse financial event, with evidence of a significant correlation to the five financial capabilities. From these data a direction or hierarchy cannot be determined. However, considering previous literature in conjunction with these results it could be postulated that the Financial Capability of Making Ends Meet is the one that is first to develop as more people have demonstrated skill in this area, especially those on lower incomes (Atkinson et al 2007). The development of Keeping Track is important at lower levels of income and many individuals only score highly on Making Ends Meet

and Keeping Track (Atkinson et al 2007). It is possible that Keeping Track, whilst important to manage your money, reduces in importance and effectiveness as the more sophisticated financial skills of Planning Ahead, Choosing Products and Staying Informed develop. The Money Attitude Security appears to influence the development of these higher financial capability skills.

5.4 Perception of Wealth

Perception of wealth correlated significantly and positively to the money attitude Security, the four socio-economic factors Social Class, Education, Income and Occupation, and the four financial capabilities of Making Ends Meet, Choosing Products, Staying Informed and Planning Ahead. It also correlated significantly and negatively to the financial capability of Keeping Track. This supports previous research that individuals who perceive themselves to be affluent perceive security to be important, plan ahead and have developed the basic skills to manage their money (Atkinson et al. 2007, von Stumm et al. 2013). There is also empirical evidence to support the positive influence of Perception of Wealth and social class upon financial capability (Monticone 2010). These factors are correlated but Perception of Wealth is unlikely to be the catalyst it could just be the enhancer. One could argue that social class, education, income and occupation are likely to be related in that an individual with a higher social class has the parental income to support a good education which may result in a good job with a good income, but this is not always the case and there are many anomalies. Often intelligent impoverished children develop the drive to achieve, whilst the rich children lack any incentive. The issue is that these findings may have other common causes and not be discretely related.

This study has not addressed indebtedness and although an individual perceives themselves as affluent the funds could be generated from debt. This is a growing concern in most western countries (Lusardi 2011).

5.5 Other Socio-Economic Factors

Of the ten socio-economic factors raised earlier this research identifies Perception of Wealth and Social Class as the two strongest indicators of financial capability. There was no significant correlation with religious beliefs, politics, age, or gender. Income, education and social class were significantly positively correlated and exhibited a significant weak positive correlation to all financial capabilities other than Keeping Track, to which they exhibited a significant weak negative correlation. This supports the earlier interpretation that financial capability generally increases with increased income, which is related to Education and Social Class (Monticone 2010). Except that as these skills improve the need to keep track of personal finances, to the same degree, diminishes.

There are other factors that could be influencing these outcomes and further work is required to continue this quest to unravel the complex interactions that determine financial decision-making.

This research has determined that:

1. there is no significant relationship between religious beliefs and political orientation on the Financial Capability or Money Attitude of adults in the UK who have experienced an adverse financial event.
2. there is a significant relationship between the Education, Social Class, Occupation and Income on Financial Capability of adults in the UK who have experienced an adverse financial event.

3. there is no significant relationship between the Education, Social Class, Occupation and Income on Money Attitude of adults in the UK who have experienced an adverse financial event.

Chapter Six – Findings

6.1 Introduction

This research was initiated by the desire to identify the relationships that determine an individual's financial decision-making ability. It was hypothesised that a number of socio-economic factors, including Perception of Wealth, independently determined an individual's financial cognitive capability and emotional attitude to money. And it was the interaction of these two variables that determine the resultant overall decision-making ability.

This study was therefore undertaken to research the relationships between these factors with particular reference to an individual's perception of wealth and the effect this perception had upon either financial capability or money attitude in a purposive on-line sample of individuals who self-selected as having experienced an adverse financial event in the last five years.

No simple linear relationships were identified. Perception of Wealth showed a significant strong correlation with two elements of Financial Capability, Planning Ahead and Making Ends Meet and the Socio-economic factor, Income, however, it failed to show any strong significant correlation with any other variable. The situation appears much more complex.

As hypothesised the two areas that impact upon financial decision making appear to be cognitive and emotional but not simply financial capability and money attitudes as identified in the current published research (von Stumm et al 2013).

6.1.1 Cognitive input

Financial capability determined by the four elements Making Ends Meet, Planning Ahead, Choosing Product and Staying Informed were all positively correlated. These four significantly positively, and fairly strongly, correlated with Perception of Wealth and the Money Attitude Security. Income, Social Class and Education were also significantly positively correlated but to a lesser extent. This suggests that individuals with higher cognitive ability who are more affluent with a higher social class, have a good intertemporal financial understanding and prioritise the need to have some savings, have a higher financial capability. This means they can manage their day to day finances, plan their mid-term needs such as paying quarterly or annual bills and they can make adequate long-term provision for insurance and pensions as well as having sufficient reserves for the unexpected financial event. The negative correlation to Keeping Track implies that as one's financial capability and affluence improves, the need to keep a tight track of day to day finances is reduced. This is unlikely but the magnitude of the sums tracked are likely to be proportional to the level of personal wealth. It is therefore possible that the survey questions failed to effectively identify this.

6.1.2 Emotional input

The emotional component of financial decision making was believed to be determined by the four Money Attitudes; Love, Power, Freedom and Security (Goldberg and Lewis 1978). In this study, the Money Attitude of Security is the odd one out and appears to be strongly linked to cognitive financial skills. This could be explained as the reason, or drive, for people developing better financial skills and improving their financial understanding.

The three remaining Money Attitudes; Freedom, Power and Love (generosity) were significantly self-correlated and all were significantly but weakly negatively correlated to all five financial capability factors, except for Power, which had a significant, weak positive correlation to Staying Informed.

Money Pathology is a separate measure in the survey but fits snugly into this bracket, correlating with the three Money Attitudes, negatively correlating with five financial capabilities but having no significant correlation to the Money Attitude of Security. This area which appears to include the extent to which money creates anxiety, fear and neurosis is a fifth money attitude (Anxiety) and has been highlighted in earlier research (Yamauchi and Templar 1982, Furnham and Okamura 1999).

As well as the emotional elements of these four new Money Attitudes; Love, Power, Freedom and Anxiety it appears that the emotional element that impacts upon the cognitive Financial Capability could be behavioural. There is perhaps a need to incorporate the influence of Reward and Drive of the Behavioural Activation Systems into the equation and are areas to be considered for future research.

6.2 Implications

The existing literature in this area of financial capability and money attitudes is inconclusive in its overall understanding. There are several papers that have presented findings but with little consistency and a variety of interesting plausible explanations. This study finds support from many sources as already indicated but fails to support the general consensus or popular current beliefs. Current research appears to have readily accepted stereotypical answers, attributing lack of financial capability to age and gender, as these have not been challenged. This study has dispelled some popular beliefs but brought others, less popular but already suggested in the literature, to the

fore. The popular answers of age and gender have not been identified as material influences in this study but it is suggested that Security is an influence on the cognitive development of Financial Capability and not just an emotional Money Attitude.

These ideas are slightly entangled but offer a clearer and more accurate explanation of the cognitive and emotional components of financial decision making. The diagram in figure 9 is offered here for readers' consideration. It brings these results together with existing literature to formulate a new Financial Decision-Making Framework showing the complex interactions between Financial Capability, Money Attitudes, their elements and the main socio-economic factors in answer to the research questions originally posed.

Financial decision-making ability is a result of the combination of Financial Capability with Money Attitude. Money Attitude is developed from a combination of emotional input activated by the motivational behaviour of Drive and Reward (Marshall 2003). Emotional input is derived from appropriate emotion to money that is initiated in the individual and known currently as money attitudes namely: Power, a desire to show prestige or influence; Love, a desire to express love by generosity or incite affection; Freedom, a desire to be free of entanglement, obligations or control; and finally, Anxiety, a desire to avoid conflict and choice.

In order to answer the final research question, the following framework is proposed. Effective Financial Capability is developed from a combination of the three financial capabilities; namely: Staying Informed, Choosing Products and Planning Ahead. These three skills develop after the individual has developed the basic financial capability of Making Ends Meet, and has had the opportunity to experience their new-found skill and use it to develop an understanding of the need for financial security. Making Ends Meet

is the initial financial capability component that empirical research has identified as the most common and prevalent amongst the otherwise financially ignorant and in many cases impoverished and incorporates an element of Keeping Track (Atkinson et al 2006).

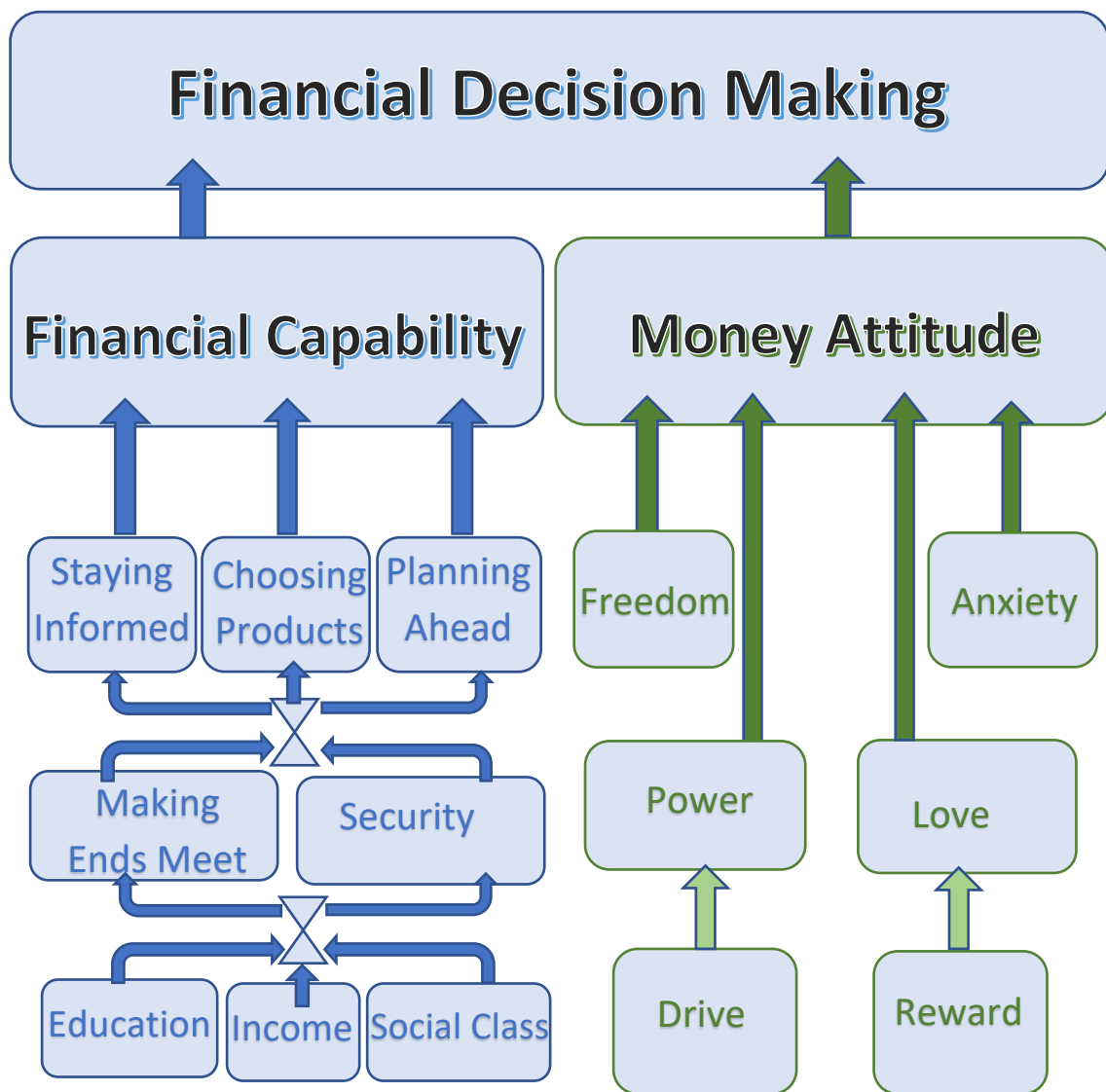


Figure 9 Diagram to show theory of Financial Decision-Making Framework

The skill of Making Ends Meet develops through a combination of input from the socio-economic factors of education, income and social class (Figure 9).

6.3 Strengths and limitations

The main strength of this study is the large sample size (33,715) obtained from the British public through the promotion of the BBC and the inclusion of 189 questions covering twelve separate measures.

This association with the BBC adds a further strength as a dedicated web-site was used for a number of surveys and the programmes strongly encouraged all viewers to participate in the cocktail of questionnaires available. As a result, the survey is likely to have been answered by a wider audience than normal on-line surveys.

Its limitations are many. Its source of data is an on-line survey and as such there is no option for respondents to obtain clarification. However, previous research has demonstrated that on-line surveys provide results consistent with the more traditional methods. (Weigold et al 2013).

It is a long and time-consuming survey, which may attract lack of attention towards the end but the variety of formats counteract this to some extent (Galesic and Bosnjak 2009), later questions may not have been answered with as much thought as earlier ones.

It is a one-off survey and as such has no follow up, so causal interpretations of findings are purely speculative.

Some questions have an element of ambiguity, or lack of clarity, such that it is possible that the data collected does not reflect the original intention.

As a self-selected purposive sample of over 33,000 respondents who have experienced an adverse financial event it would be inaccurate to consider this representative of the

financial capability and money attitude of most people in the UK who are experiencing or have experienced an adverse financial event.

6.4 Future research

This research aimed to investigate the relationships between the elements that were believed to make up the financial decision-making process. In doing so it has dispelled some theories and verified others. Hopefully this will build on past and future research in order to improve our understanding and find solutions for future use. Whilst undertaking this work a number of issues and questions arose that were beyond the scope of the current research but are interesting elements they may well throw further light on this complex issue.

6.4.1 Behavioural Influences

The questions in this survey uncovered an unexpected relationship between financial decision-making and behavioural activation and inhibition systems. Although not part of this study the results are supported by other research and as such warrant further investigation (Marshall 2003, D Meza et al 2008,).

6.4.2 Keeping Track

The financial capability Keeping Track failed to comply with the other financial capabilities and in almost all cases resulted in a negative correlation. This has been explained by the likelihood that most individuals as they become more affluent would fail to see the necessity of closely monitoring their finances. Whilst plausible I would like to investigate further with more appropriate questions to verify or measure the extent and methods used by the more affluent to keep track of their larger financial pots.

6.4.3 Indebtedness

Leverage, borrowing, and general credit has not been addressed in this research. An individual's perception of his wealth may well be misconstrued by the amount of money they can lay their hands on at any given time. The current ease of obtaining credit and especially obtaining cash from cash dispensers on credit cards may lead to a mistaken feeling of wealth. This perception may bias answers to this type of survey. A new study considering and accounting for this possible misperception may be informative.

6.4.4 Money Pathology

The questions in this survey uncovered a significant unexpected relationship between money pathology, money attitudes (positive) and financial capabilities (negative). The strength of this relationship was such that it has been included in the proposed theory herein but further work on verifying its place, inclusion and the impact upon the emotional attributes of Money Attitudes should be a priority.

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Appendices

Appendix 1 Adverse Financial Event Questions

145. Which, if any, of the following adverse financial events have you personally experienced in the last five years? - Bankruptcy

146. Which, if any, of the following adverse financial events have you personally experienced in the last five years? - Repossession of car

147. Which, if any, of the following adverse financial events have you personally experienced in the last five years? - Repossession of house

148. Which, if any, of the following adverse financial events have you personally experienced in the last five years? - Repossession of other goods bought on credit

149. Which, if any, of the following adverse financial events have you personally experienced in the last five years? - Missing one or more payments on a loan or mortgage

150. Which, if any, of the following adverse financial events have you personally experienced in the last five years? - Denial of credit

151. Which, if any, of the following adverse financial events have you personally experienced in the last five years? - Unexpected overdraft

Appendix 2 Financial Capability Questions

164. Making ends meet - Which of these statements best describes how well you are keeping up with your bills and credit commitments at the moment?

165. Making ends meet - How strongly do you agree with the statement “I am very organised when it comes to managing my money day to day”?

166. Making ends meet - In the last 12 months, how often have you run out of money before the end of the week/month or needed to use your credit card or overdraft to get by?

167. Making ends meet - In the last five years have you found yourself in financial difficulties? By that we mean three months or more behind with payments on your regular commitments.

168. Keeping track - How often do you check how much money you have available – either in your current account or, if you don’t use a current account day to day, how much cash you have in your hand?

169. Keeping track - What do you normally do when you get a statement (either paper or online) for your bank account or credit card?

170. Keeping track - How accurately do you know how much money you have either in your current account or, if you don’t use a current account day to day, how much cash you have in hand?

171. Keeping track - How often do you normally check how much money you have in your bank account (or check your cash in hand if you have no bank account)?

172. Planning ahead - What would you be most likely to do if you had an unexpected major expense (an expense equivalent to your income for a whole month or more)?

173. Planning ahead - For how long do you think you could still make ends meet if you lost your main source of income?

174. Planning ahead - Do you have any insurance for your personal possessions or for travelling?

175. Planning ahead - How strongly do you agree or disagree with the statement - I always have money saved for a rainy day?
176. Choosing products - To what extent do you (or you and your partner) normally shop around when you open or take out a financial 'product'? (Products such as a bank account, credit/store card, insurance, loan, insurance.)
177. Choosing products - If you compare products, what things do you compare?
178. Choosing products - Before you sign up for a financial product, which of these do you do?
179. Staying informed - Do you keep track of changes in the housing market?
180. Staying informed - Do you keep track of changes in the stock market?
181. Staying informed - Do you keep track of changes in interest rates?
182. Staying informed - Do you keep track of changes in inflation?
183. Staying informed - Do you keep track of changes in taxation e.g. income tax, capital gains tax?
184. Staying informed - Do you keep track of changes in the job market?
185. Staying informed - Do you keep track of changes in the state pension, benefits and tax credits?
186. Staying informed - Do you keep an eye out for the best buys in financial products?
187. Staying informed - Considering those you answered Yes to, how frequently do you tend to monitor them?
188. Staying informed - In your opinion, how important is it for people like you to keep up with financial matters (such as interest rates, housing market, job market, etc) generally?
189. Staying informed - How important is it for people like you to keep up with changes in prices and to look out for deals on goods and services?

Appendix 3 Financial Capability Adjustments

Adjustments performed to questionnaire responses to ensure equal weighting of each of the five elements used to obtain a measure for Financial Capability.

To obtain a score for each of the five elements of financial capability from the multiple-choice questionnaire required some adjustment to ensure equal weighting of each element and accurate interpretation of responses. The answers were ranked 1 – 5 to indicate compliance. Where there were more than five options the responses were recalibrated to be a number from one to five but to accurately indicate the element of capability being tested. e.g. Question 173 was Q2 for Planning Ahead, it had six multiple choice responses. It asked: For how long do you think you could still make ends meet if you lost your main source of income? The options 1 to 5 gave periods of time from; Less than one week through to; Twelve months or more. Option six was “I don’t know”. It was selected by 3.65% of our sample and was recalibrated to a “one”. In other areas where options gave detailed information about types of loans, for instance, and we just needed to know they took a loan these items were collated to give a loan score.

For Making Ends meet question 166 was reduced from six responses to five, recalibrating the “6” “don’t know” answer, which had a 0.30% response, to the middle answer “sometimes” scoring “3”.

For Keeping Track three of the four questions, which had seven responses were recalibrated to five. Question 168 responses “6” “Never” (0.85%) and “7” “Don’t know” (0.26%) were both recalibrated to “1” “Less than once a month”. Question 169 responses “6” “I don’t have a bank account or credit card” (0.31%) and “7” “I just check the final balance. I don’t look at the statement at all” (13.71%) were both recalibrated

to “3” “I don’t receive statements”. Question 171 responses “6” “Never” (0.74%) and “7” “Don’t know” (0.27%) were both recalibrated to “1” “Less than once a month”.

For Planning Ahead two questions were recalibrated. Question 172 responses “6” “I would ask family and friends to help” (19.29%) and “7” “I would use my credit card or overdraft” (22.08%) were both recalibrated to “2” “I would apply for a loan”. Question 173 response “6” “Don’t know” (3.65%) was recalibrated to “1” “Less than one week”.

	Q1	Q2	Q3	Q4	ADJ	SCORE
Making Ends Meet Q164-167	6	2	4	1	-1	12
Keeping Track Q168-171	4	7	3	4	-6	12
Planning Ahead Q172-175	1	7	6	1	-3	12
Choosing Products Q176-178	7	5	5	5	-2	20
Staying Informed Q170-189	5	6	5	5	-1	20

Table 8 Example of Financial Capability Calculation

For Choosing Products two questions were recalibrated and as only three questions were asked total scores had “5” added to them to adjust the weighting in line with the other elements of financial capability. Question 176 responses “4” “I think we should compare but in practice we don’t” (8.72%) and “6” “Why compare they are all much the same” (1.87%) were both recalibrated to “1” “I haven’t bought a financial product”. Response “7” “We personally shop around quite a bit” (57.33%) was recalibrated to “5” to join “we get an advisor to shop around for us”. Question 178, although it only had five responses, it was realised that the ranking was ineffective so responses were recalibrated to use only “1”, “3” and “5”. As a result “2” “I don’t read the terms and

conditions" (14.39%) and "4" "I haven't bought a financial product" (5.94%) were both recalibrated to "1" joining with the "don't knows" (1.77%).

Staying Informed had three multiple choice questions plus eight YES/NO questions. Question 189 was recalibrated to move "3" "Don't know" responses to join "1" "Not at all important" in order to correct the ranking. The eight YES/NO questions scoring "0" or "1" were added up to give a total score, with a maximum of five, and were included as one question or 25% of the overall score for Staying Informed.

Table 3 shows the Financial Capability calculation for one respondent. Each of the five elements of financial capability, after adjustments, are equally weighted at 20% and the individual could be given a total financial capability score out of 100.

Appendix 4 Money Attitude Questions

43. Please indicate the degree to which you agree or disagree - Relative to my income I tend to save quite a lot of money
44. Please indicate the degree to which you agree or disagree - If I don't save enough money every month I get very anxious
45. Please indicate the degree to which you agree or disagree - I'd rather save money than spend it
46. Please indicate the degree to which you agree or disagree - It is important to have savings, you never know when you may urgently need the money
47. Please indicate the degree to which you agree or disagree - With enough money, you can do whatever you want
48. Please indicate the degree to which you agree or disagree - The main point of earning money is to feel free and be free
49. Please indicate the degree to which you agree or disagree - There are very few things money can't buy
50. Please indicate the degree to which you agree or disagree - If I had enough money, I would never work again
51. Please indicate the degree to which you agree or disagree - The best thing about money is that it means you can influence others
52. Please indicate the degree to which you agree or disagree - Money is important because it shows how successful and powerful you are
53. Please indicate the degree to which you agree or disagree - You can never have enough money
54. Please indicate the degree to which you agree or disagree - I have always been inspired by powerful tycoons who make lots of money
55. Please indicate the degree to which you agree or disagree - I often demonstrate my love to people by buying them things

56. Please indicate the degree to which you agree or disagree - I am very generous with the people love

57. Please indicate the degree to which you agree or disagree - The best present you can give to someone is money

58. Please indicate the degree to which you agree or disagree - Money can help you be accepted by others

Appendix 5 Remaining Survey Questions

Socio-economic and demographic data; Questions 1 to 15 - multiple choice

What is your gender?

To which ethnic group do you identify yourself as belonging?

What is the highest level of educational qualification you have attained? If you are still in full-time education what is the highest qualification you have achieved so far?

What is your current relationship status?

How many siblings (brothers and sisters) do you have?

What is your total gross annual or weekly household income (based on the last year)?

Are you the main wage earner in your household?

If yes, which of the descriptions best describes the sort of work you do? (If no, please select Does not apply from the dropdown menu)

If no, what best describes your status now? (If this question is not relevant to you, please select Does not apply from the dropdown menu)

If you are not the main wage earner in your household, which describes the sort of work the main wage earner does?

How many people are wholly financially dependent on you (e.g. spouse/partner, children, elderly relative)?

To which social class do you identify yourself as belonging?

What was your birth order in relation to your brothers and sisters?

Political Orientation

Religiousness

How optimistic are you about your personal financial future?

How optimistic are you about your country's financial future?

Money Pathology; Questions 18 to 42 - YES/NO

Do you find yourself worrying about the spending, using or giving of money all the time?

Are you inhibited about talking to others about money, particularly about income?

Do you buy things you don't really need because they are great bargains?

Do you lie awake at night trying to figure out a way to spend less money and save more, even though you are already saving money?

Do you hold onto, or hoard your money?

Do you regularly exceed the spending limit on your credit card?

Does gambling make you feel a burst of excitement?

Would you walk out of your way to save a bus fare you could easily afford?

Are you constantly puzzled about where your money goes or why there is none left at the end of each month?

Do you use money to control and manipulate others?

Do you refuse to take money seriously?

Do you resent having to pay full price for any item when you shop?

Do you often gamble and spend large sums on your bets?

Do you spend a large proportion of your free time shopping?

When you ask for money are you flooded with guilt or anxiety?

Are you increasingly anxious about whether you can pay your bills each month?

Do you spend money on others but have problems spending money on yourself?

Do you buy things when you feel anxious, bored, upset, depressed or angry?

Are you reluctant to learn about practical money matters?

Do you think about your finances all the time?

Do you have a fear of losing money, or of being taken advantage of financially?

Do you have trouble spending money, and resent spending money on anything other than essentials?

Does shopping make you feel good in a way that nothing else does?

Do you often spend money when you are feeling depressed, worthless or worried?

Do you often spend money and then feel guilty about it afterwards?

Emotional regulation; Questions 59 to 68 - Seven-point Likert scale; Agree to Disagree

When I want to feel more positive emotion (such as joy or amusement) I change what I'm thinking about

I keep my emotions to myself

When I want to feel less negative emotion (such as sadness or anger) I change what I'm thinking

When I am feeling positive emotions, I am careful not to express them

When I am faced with a stressful situation, I make myself think about it in a way that helps me stay calm

I control my emotions by not expressing them

When I am feeling negative emotions, I make sure not to express them

I control my emotions by changing the way I think about the situation I am in

When I want to feel less negative emotion, I change the way I am thinking about the situation

When I want to feel more positive emotion, I change the way I am thinking about the situation

Social anxiety; Questions 69 to 98 - YES/NO

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. I think of things I could have done to be better prepared for the interview

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. I think about how to behave if the interview takes a critical turn

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. I stay completely relaxed

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. I turn to something else (e.g. I look at the pictures which hang on the wall or I read magazines)

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. Which of these applies to you? - I tell myself it won't be all that bad

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. Which of these applies to you? - I carefully read the wording of the job advertisement once again

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. Which of these applies to you? - I remember similar situations which were very important for me

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. Which of these applies to you? - I imagine the consequences if I don't get the job

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. Which of these applies to you? - I stay calmer than most people I know in a similar situation

Situation 1 - Imagine that you applied for a job and that, in a few minutes, your interview will start. Which of these applies to you? - I decide not to think about the interview any more

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I carefully plan my response to the situation

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I tell myself: "It will all work out OK

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I avoid thinking about the situation

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I plan ahead for difficulties I may face

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I spend time with friends to take my mind off the problem

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I review options for improving my situation

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I stay completely calm

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I consider the advice of people who understand these kind of problems

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I tell myself "I have been able to cope with more difficult situations

Situation 2 - Imagine you have been hit by some major unanticipated costs which put you in a difficult financial situation. Which of these applies to you? - I think about the consequences

Situation 3 - Imagine that you have made a mistake on the job which shouldn't have happened and that you are to have a talk with your boss. Which of these applies to you? - I stay calmer than most of my colleagues

Situation 3 - Imagine that you have made a mistake on the job which shouldn't have happened and that you are to have a talk with your boss. Which of these applies to you? - I remember similar unpleasant situations

Situation 3 - Imagine that you have made a mistake on the job which shouldn't have happened and that you are to have a talk with your boss. I ask my colleagues what I have to expect from this situation

Situation 3 - Imagine that you have made a mistake on the job which shouldn't have happened and that you are to have a talk with your boss. I think about what I can do if he/she reproaches me

Situation 3 - Imagine that you have made a mistake on the job and that you are to have a talk with your boss. I tell myself: "Until now, I have done quite a good job, so it won't go all that badly for me"

Situation 3 - Imagine that you have made a mistake on the job which shouldn't have happened and that you are to have a talk with your boss. I calmly finish all the other tasks first

Situation 3 - Imagine that you have made a mistake on the job which shouldn't have happened and that you are to have a talk with your boss. I imagine how unpleasant it could get

Situation 3 - Imagine that you have made a mistake on the job which shouldn't have happened and that you are to have a talk with your boss. I first relax and don't think about the talk

Situation 3 - Imagine that you have made a mistake on the job which shouldn't have happened and that you are to have a talk with your boss. I think about how this mistake could happen and how I can avoid a repetition

Situation 3 - Imagine that you have made a mistake on the job which shouldn't have happened and that you are to have a talk with your boss. I tell myself that I've coped with situations that were far more trying

Financial Knowledge; Questions 99 to 108 - multiple choice

A TV is on sale at a discount in two different shops. The original cost of the TV was £250. One shop is offering £30 off, the other 10% off. Which is the better deal?

The term APR is often used to describe the interest rate payable on loans, credit cards and mortgages. What does APR stand for?

Of the following places, which is usually the most expensive place to get foreign currency?

Where does someone go to make a financial complaint about how a bank or building society has treated them?

Which method of payment gives you the strongest consumer protection if you're buying goods worth over £100?

You put £4,340 into a cash ISA this tax year, then withdraw £1,000. How much more can you put in to the same ISA this tax year so you're using up your maximum cash allowance?

A European Health Insurance Card (EHIC) provides you with what kind of cover while travelling in the European Union?

Which is the worst pound for pound deal on boxes of breakfast cereal?

You have bought a dress for a friend and they don't like it. When you return it with the receipt a week later, what is the retailer legally obliged to do?

On a £5,000 credit card debt at 19.9% APR interest, how long will it take to clear if you are making the minimum monthly repayments (defined as the higher of 2% or £5)?

Behavioural Inhibition Systems (BIS)/Behavioural Activation Systems (BAS) motivational scales; Questions 109 to 128 - Four-point Likert scale; True to False

Even if something bad is about to happen to me, I rarely experience fear or nervousness

I go out of my way to get things I want

When I am doing well at something I love to keep at it

I am always willing to try something new if I think it will be fun

When I get something I want, I feel excited and energised

Criticism or scolding hurts me quite a bit

When I want something I usually go all-out to get it

I will often do things for no other reason than that they might be fun

If I see a chance to get something I want I move on it right away

I feel pretty worried or upset when I think or know somebody is angry at me

When I see an opportunity for something I like I get excited right away

I often act on the spur of the moment

If I think something unpleasant is going to happen I usually get pretty "worked up"

When good things happen to me, it affects me strongly

I feel worried when I think I have done poorly at something important

I crave excitement and new sensations

When I go after something I use a no holds barred approach

I have very few fears compared to my friends

It would excite me to win a contest

I worry about making mistakes

Impulsive spending; Questions 129 to 133 - Five-point Likert; scale Agree to Disagree

Your approach to shopping - I often buy things spontaneously

"Just do it" describes the way I buy things

I often buy things without thinking

I see it, I buy it" describes me

Buy now, think about it later" describes me

Financial Planning; Questions 134 to 144 - mainly Five-point Likert; scale Agree to Disagree

Look at this example of a bank statement and answer the questions that follow. - Looking at the example statement, how much money was in the account at the end of February?

Look at this same example. If a direct debit of £179 comes in on 28 February and there is an agreed overdraft limit of £100 on the account, would there be enough money, including the overdraft limit, to cover the direct debit?

Indicate how much you agree with the following statements - I set financial goals for the next 1–2 months for what I want to achieve with my money

Indicate how much you agree with the following statements - I decide beforehand how my money will be used in the next 1–2 months

Indicate how much you agree with the following statements - I actively consider the steps I need to take to stick to my budget in the next 1–2 months

Indicate how much you agree with the following statements - I consult my budget to see how much money I have left for the next 1–2 months

Indicate how much you agree with the following statements - I like to look to my budget for the next 1–2 months in order to get a better view of my spending in the future

Indicate how much you agree with the following statements - It makes me feel better to have my finances planned out in the next 1–2 months

Indicate how much you agree with the following statements - If I need to make difficult financial decisions I have ready access to advice

Indicate how much you agree with the following statements - I have friends or family who have a good understanding of financial matters

Indicate how much you agree with the following statements - I know where to go to get good financial information and advice

Adverse financial events; Remaining Questions 152 to 157 - YES/NO

Which, if any, of the following life events have you personally experienced in the last five years? Redundancy or other major unexpected loss of income

Which, if any, of the following life events have you personally experienced in the last five years? Retirement

Which, if any, of the following life events have you personally experienced in the last five years? Major illness (self)

Which, if any, of the following life events have you personally experienced in the last five years? Major illness (close family member)

Which, if any, of the following life events have you personally experienced in the last five years? Birth (or adoption) of child

Which, if any, of the following life events have you personally experienced in the last five years? Other significant life event with adverse financial consequences

Personal perception of wealth; Questions 158 to 160 multiple choice

Q158. Personal Wealth - If you own your own home, what do you think is its value less any mortgage you have? If you have more than one property, include the value of all your properties less any mortgages

Q159. Personal Wealth - If you have any savings and other financial investments, what do you think is the value of these savings and investments?

Q160. Personal Wealth - If you have any physical items that you think of as part of your wealth (e.g. car caravan artwork, jewellery) what do you think is the value of these items?

Appendix 6 Factor Analyses Matrices

	Component					
	1	2	3	4	5	6
Staying informed - Do you keep track of changes in inflation?	.754					
Staying informed - Do you keep track of changes in interest rates?	.703					
Staying informed - Considering those you answered Yes to, how frequently do you tend to monitor them?	.651					
Staying informed - Do you keep track of changes in taxation e.g. income tax, capital gains tax?	.639					
Staying informed - Do you keep track of changes in the housing market?	.638					
Staying informed - Do you keep track of changes in the stock market?	.594					
Staying informed - In your opinion, how important is it for people like you to keep up with financial matters (such as interest rates, housing market, job market, etc) generally?	.508					
Staying informed - Do you keep track of changes in the job market?	.501					
Keeping track - How often do you normally check how much money you have in your bank account (or check your cash in hand if you have no bank account)?		.919				
Keeping track - How often do you check how much money you have available – either in your current account or, if you don't use a current account day to day, how much cash you have in your hand?		.917				
Keeping track - How accurately do you know how much money you have either in your current account or, if you don't use a current account day to day, how much cash you have in hand?		.683				
Making ends meet - In the last 12 months, how often have you run out of money before the end of the week/month or needed to use your credit card or overdraft to get by?			.813			
Planning ahead - How strongly do you agree or disagree with the statement - I always have money saved for a rainy day?			.758			
Making ends meet - Which of these statements best describes how well you are keeping up with your bills and credit commitments at the moment?			.716			
Making ends meet - How strongly do you agree with the statement "I am very organised when it comes to managing my money day to day"?			.636			
Planning ahead - For how long do you think you could still make ends meet if you lost your main source of income?			.613			
Planning ahead - What would you be most likely to do if you had an unexpected major expense (an expense equivalent to your income for a whole month or more)?				.655		
Making ends meet - In the last five years have you found yourself in financial difficulties? By that we mean three months or more behind with payments on your regular commitments				.526		
Planning ahead - Do you have any insurance for your personal possessions or for travelling?				.506		
Staying informed - Do you keep track of changes in the state pension, benefits and tax credits?						
Choosing products - If you compare products, what things do you compare?					-.642	
Choosing products - To what extent do you (or you and your partner) normally shop around when you open or take out a financial 'product'? (Products such as a bank account, credit/store card, insurance, loan, insurance.)					-.618	
Choosing products - Before you sign up for a financial product, which of these do you do?					-.550	
Staying informed - How important is it for people like you to keep up with changes in prices and to look out for deals on goods and services?					-.540	
Staying informed - Do you keep an eye out for the best buys in financial products?					-.510	
Keeping track - What do you normally do when you get a statement (either paper or online) for your bank account or credit card?						.988

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 8 iterations.

Table 9 Financial Capability Factor Analysis Rotated Matrix

	Component			
	1	2	3	4
Please indicate the degree to which you agree or disagree - Money is important because it shows how successful and powerful you are	.777			
Please indicate the degree to which you agree or disagree - The best thing about money is that it means you can influence others	.737			
Please indicate the degree to which you agree or disagree - I have always been inspired by powerful tycoons who make lots of money	.626			
Please indicate the degree to which you agree or disagree - The best present you can give to someone is money	.619			
Please indicate the degree to which you agree or disagree - Money can help you be accepted by others	.592			
Please indicate the degree to which you agree or disagree - You can never have enough money	.440			
Please indicate the degree to which you agree or disagree - I'd rather save money than spend it		.783		
Please indicate the degree to which you agree or disagree - It is important to have savings, you never know when you may urgently need the money		.691		
Please indicate the degree to which you agree or disagree - If I don't save enough money every month I get very anxious		.630		
Please indicate the degree to which you agree or disagree - Relative to my income I tend to save quite a lot of money		.587		
Please indicate the degree to which you agree or disagree - I am very generous with the people love			.855	
Please indicate the degree to which you agree or disagree - I often demonstrate my love to people by buying them things			.791	
Please indicate the degree to which you agree or disagree - With enough money, you can do whatever you want				.819
Please indicate the degree to which you agree or disagree - The main point of earning money is to feel free and be free				.721
Please indicate the degree to which you agree or disagree - There are very few things money can't buy				.584
Please indicate the degree to which you agree or disagree - If I had enough money, I would never work again				

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Table 10 Money Attitude Factor Analysis Rotated Matrix

Appendix 7 Correlation Tables

			Perception of Wealth Mean	Making Ends Meet	Keeping Track	Planning Ahead	Choosing Products	Staying Informed
Spearman's rho	Perception of Wealth Mean	Correlation Coefficient	1.000	.456**	-.149**	.620**	.236**	.264**
		Sig. (2-tailed)		0.000	.000	0.000	0.000	0.000
		N	33715	33715	33715	33715	33715	33715
	Making Ends Meet	Correlation Coefficient	.456**	1.000	-.001	.657**	.303**	.250**
		Sig. (2-tailed)	0.000		.890	0.000	0.000	0.000
		N	33715	33715	33715	33715	33715	33715
	Keeping Track	Correlation Coefficient	-.149**	-.001	1.000	-.108**	.148**	.193**
		Sig. (2-tailed)	.000	.890		.000	.000	.000
		N	33715	33715	33715	33715	33715	33715
	Planning Ahead	Correlation Coefficient	.620**	.657**	-.108**	1.000	.327**	.312**
		Sig. (2-tailed)	0.000	0.000	.000		0.000	0.000
		N	33715	33715	33715	33715	33715	33715
	Choosing Products	Correlation Coefficient	.236**	.303**	.148**	.327**	1.000	.432**
		Sig. (2-tailed)	0.000	0.000	.000	0.000		0.000
		N	33715	33715	33715	33715	33715	33715
	Staying Informed	Correlation Coefficient	.264**	.250**	.193**	.312**	.432**	1.000
		Sig. (2-tailed)	0.000	0.000	.000	0.000	0.000	
		N	33715	33715	33715	33715	33715	33715

** . Correlation is significant at the 0.01 level (2-tailed).

Table 11 Correlation of Perception of Wealth with Financial Capability factors

Gender = Male			Perception of Wealth Mean	Making Ends Meet	Keeping Track	Planning Ahead	Choosing Products	Staying Informed
Spearman's rho	Perception of Wealth Mean	Correlation Coefficient	1.000	.472**	-.129**	.633**	.236**	.260**
		Sig. (2-tailed)		0.000	.000	0.000	.000	.000
		N	14691	14691	14691	14691	14691	14691
	Making Ends Meet	Correlation Coefficient	.472**	1.000	.036**	.663**	.299**	.252**
		Sig. (2-tailed)	0.000		.000	0.000	.000	.000
		N	14691	14691	14691	14691	14691	14691
	Keeping Track	Correlation Coefficient	-.129**	.036**	1.000	-.061**	.166**	.216**
		Sig. (2-tailed)	.000	.000		.000	.000	.000
		N	14691	14691	14691	14691	14691	14691
	Planning Ahead	Correlation Coefficient	.633**	.663**	-.061**	1.000	.333**	.326**
		Sig. (2-tailed)	0.000	0.000	.000		0.000	0.000
		N	14691	14691	14691	14691	14691	14691
	Choosing Products	Correlation Coefficient	.236**	.299**	.166**	.333**	1.000	.430**
		Sig. (2-tailed)	.000	.000	.000	0.000		0.000
		N	14691	14691	14691	14691	14691	14691
	Staying Informed	Correlation Coefficient	.260**	.252**	.216**	.326**	.430**	1.000
		Sig. (2-tailed)	.000	.000	.000	0.000	0.000	
		N	14691	14691	14691	14691	14691	14691

** . Correlation is significant at the 0.01 level (2-tailed).

Table 12 MALE Correlation of Perception of Wealth with Financial Capability factors

Gender = Female			Perception of Wealth Mean	Making Ends Meet	Keeping Track	Planning Ahead	Choosing Products	Staying Informed
Spearman's rho	Perception of Wealth Mean	Correlation Coefficient	1.000	.430**	-.152**	.601**	.237**	.246**
		Sig. (2-tailed)		0.000	.000	0.000	.000	.000
		N	19024	19024	19024	19024	19024	19024
	Making Ends Meet	Correlation Coefficient	.430**	1.000	-.014	.644**	.306**	.229**
		Sig. (2-tailed)	0.000		.062	0.000	0.000	.000
		N	19024	19024	19024	19024	19024	19024
	Keeping Track	Correlation Coefficient	-.152**	-.014	1.000	-.132**	.137**	.195**
		Sig. (2-tailed)	.000	.062		.000	.000	.000
		N	19024	19024	19024	19024	19024	19024
	Planning Ahead	Correlation Coefficient	.601**	.644**	-.132**	1.000	.323**	.280**
		Sig. (2-tailed)	0.000	0.000	.000		0.000	0.000
		N	19024	19024	19024	19024	19024	19024
	Choosing Products	Correlation Coefficient	.237**	.306**	.137**	.323**	1.000	.435**
		Sig. (2-tailed)	.000	0.000	.000	0.000		0.000
		N	19024	19024	19024	19024	19024	19024
	Staying Informed	Correlation Coefficient	.246**	.229**	.195**	.280**	.435**	1.000
		Sig. (2-tailed)	.000	.000	.000	0.000	0.000	
		N	19024	19024	19024	19024	19024	19024

** . Correlation is significant at the 0.01 level (2-tailed).

Table 13 FEMALE Correlation of Perception of Wealth with Financial Capability factors

			PDVMean	Anxiety	Security	Freedom	Power	Love	Behavioural Inhibition System	Behavioural Activation System - Reward	Behavioural Activation System - Drive	Activation System - Fun Seeking
Spearman's rho	PDVMean	Correlation Coefficient	1.000	-.270**	.233**	-.046**	-.007	-.027**	-.076**	-.056**	.058**	-.050**
		Sig. (2-tailed)		0.000	0.000	.000	.205	.000	.000	.000	.000	.000
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715
	Anxiety	Correlation Coefficient	-.270**	1.000	.004	.219**	.250**	.274**	.360**	.199**	.057**	.113**
		Sig. (2-tailed)	0.000		.442	0.000	0.000	0.000	0.000	.000	.000	.000
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715
	Security	Correlation Coefficient	.233**	.004	1.000	-.012	.048**	-.012	.075**	.035**	.013	-.084**
		Sig. (2-tailed)	0.000	.442		.031	.000	.025	.000	.000	.015	.000
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715
	Freedom	Correlation Coefficient	-.046**	.219**	-.012	1.000	.422**	.252**	.064**	.175**	.145**	.114**
		Sig. (2-tailed)	.000	0.000	.031		0.000	0.000	.000	.000	.000	.000
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715
	Power	Correlation Coefficient	-.007	.250**	.048**	.422**	1.000	.397**	-.016**	.191**	.290**	.151**
		Sig. (2-tailed)	.205	0.000	.000	0.000		0.000	.003	.000	0.000	.000
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715
	Love	Correlation Coefficient	-.027**	.274**	-.012	.252**	.397**	1.000	.122**	.210**	.225**	.179**
		Sig. (2-tailed)	.000	0.000	.025	0.000	0.000		.000	0.000	0.000	.000
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715
	Behavioural Inhibition System	Correlation Coefficient	-.076**	.360**	.075**	.064**	-.016**	.122**	1.000	.223**	-.101**	-.085**
		Sig. (2-tailed)	.000	0.000	.000	.000	.003	.000		0.000	.000	.000
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715
	Behavioural Activation System - Reward	Correlation Coefficient	-.056**	.199**	.035**	.175**	.191**	.210**	.223**	1.000	.451**	.460**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	0.000	0.000		0.000	0.000
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715
	Behavioural Activation System - Drive	Correlation Coefficient	.058**	.057**	.013	.145**	.290**	.225**	-.101**	.451**	1.000	.510**
		Sig. (2-tailed)	.000	.000	.015	.000	0.000	0.000	.000	0.000		0.000
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715
	Behavioural Activation System - Fun Seeking	Correlation Coefficient	-.050**	.113**	-.084**	.114**	.151**	.179**	-.085**	.460**	.510**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	0.000	0.000	
		N	33715	33715	33715	33715	33715	33715	33715	33715	33715	33715

Table 14 Correlation of Perception of Wealth with Money Attitude factors

Gender = Male			POV/Mean	Anxiety	Security	Freedom	Power	Love	Behavioural Inhibition System	Behavioural Activation System - Reward	Behavioural Activation System - Drive	Behavioural Activation System - Fun Seeking
Spearman's rho	POV/Mean	Correlation Coefficient	1.000	-.258*	.248*	-.063*	-.046*	-.048*	-.007	-.061*	.034*	-.095*
		Sig. (2-tailed)		.000	.000	.000	.000	.000	.391	.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691
	Anxiety	Correlation Coefficient	-.258*	1.000	.059*	.229*	.239*	.256*	.344*	.208*	.082*	.136*
		Sig. (2-tailed)	.000		.000	.000	.000	.000	0.000	.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691
	Security	Correlation Coefficient	.248*	.059*	1.000	.000	.085*	-.012	.131*	.042*	-.003	-.121*
		Sig. (2-tailed)	.000	.000		.961	.000	.152	.000	.000	.694	.000
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691
	Freedom	Correlation Coefficient	-.063*	.229*	.000	1.000	.402*	.236*	.092*	.177*	.138*	.114*
		Sig. (2-tailed)	.000	.000	.961		.000	.000	.000	.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691
	Power	Correlation Coefficient	-.046*	.239*	.085*	.402*	1.000	.405*	.066*	.243*	.311*	.155*
		Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691
	Love	Correlation Coefficient	-.048*	.256*	-.012	.236*	.405*	1.000	.121*	.222*	.239*	.190*
		Sig. (2-tailed)	.000	.000	.152	.000	.000			.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691
	Behavioural Inhibition System	Correlation Coefficient	-.007	.344*	.131*	.092*	.066*	.121*	1.000	.226*	-.061*	-.048*
		Sig. (2-tailed)	.391	0.000	.000	.000	.000	.000		.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691
	Behavioural Activation System - Reward	Correlation Coefficient	-.061*	.208*	.042*	.177*	.243*	.222*	.226*	1.000	.467*	.465*
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691
	Behavioural Activation System - Drive	Correlation Coefficient	.034*	.082*	-.003	.138*	.311*	.239*	-.061*	.467*	1.000	.505*
		Sig. (2-tailed)	.000	.000	.694	.000	.000	.000	.000	.000		.000
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691
	Behavioural Activation System - Fun Seeking	Correlation Coefficient	-.095*	.136*	-.121*	.114*	.155*	.190*	-.048*	.465*	.505*	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	
		N	14691	14691	14691	14691	14691	14691	14691	14691	14691	14691

Table 15 MALE Correlation of Perception of Wealth with Money Attitude factors

Gender = Female			POV/Mean	Anxiety	Security	Freedom	Power	Love	Behavioural Inhibition System	Behavioural Activation System - Reward	Behavioural Activation System - Drive	Behavioural Activation System - Fun Seeking
Spearman's rho	POV/Mean	Correlation Coefficient	1.000	-.257**	.209**	-.049**	-.014*	-.017*	-.063**	-.043**	.056**	-.035**
		Sig. (2-tailed)		.000	.000	.000	.047	.021	.000	.000	.000	.000
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024
	Anxiety	Correlation Coefficient	-.257**	1.000	-.022**	.232**	.263**	.293**	.335**	.183**	.060**	.116**
		Sig. (2-tailed)	.000		.002	.000	.000	0.000	0.000	.000	.000	.000
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024
	Security	Correlation Coefficient	.209**	-.022**	1.000	-.029**	.016*	-.016*	.082**	.037**	.014*	-.067**
		Sig. (2-tailed)	.000	.002		.000	.032	.029	.000	.000	.048	.000
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024
	Freedom	Correlation Coefficient	-.049**	.232**	-.029**	1.000	.429**	.261**	.090**	.173**	.139**	.103**
		Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024
	Power	Correlation Coefficient	-.014*	.263**	.016*	.429**	1.000	.394**	.021*	.170**	.255**	.126**
		Sig. (2-tailed)	.047	.000	.032	.000		.000	.003	.000	.000	.000
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024
	Love	Correlation Coefficient	-.017*	.293**	-.016*	.261**	.394**	1.000	.153**	.203**	.212**	.167**
		Sig. (2-tailed)	.021	0.000	.029	.000	.000		.000	.000	.000	.000
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024
	Behavioural Inhibition System	Correlation Coefficient	-.063**	.335**	.082**	.090**	.021*	.153**	1.000	.214**	-.082**	-.072**
		Sig. (2-tailed)	.000	.000	.000	.000	.003	.000		.000	.000	.000
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024
	Behavioural Activation System - Reward	Correlation Coefficient	-.043**	.183**	.037**	.179**	.170**	.203**	.214**	1.000	.453**	.468**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024
	Behavioural Activation System - Drive	Correlation Coefficient	.056**	.060**	.014*	.139**	.255**	.212**	-.082**	.453**	1.000	.506**
		Sig. (2-tailed)	.000	.000	.048	.000	.000	.000	.000	.000		.000
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024
	Behavioural Activation System - Fun Seeking	Correlation Coefficient	-.035**	.116**	-.067**	.103**	.126**	.167**	-.072**	.468**	.506**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	
		N	19024	19024	19024	19024	19024	19024	19024	19024	19024	19024

Table 16 FEMALE Correlation of Perception of Wealth with Money Attitude factors

			Anxiety	Freedom	Love	Security	Power	Making Ends Meet	Keeping Track	Planning Ahead	Choosing Products	Staying Informed	Perception of Wealth
Spearman's rho	Anxiety	Correlation Coefficient	1.000	.219**	.274**	.004	.250**	-.448**	.017**	-.379**	-.247**	-.163**	-.169**
		Sig. (1-tailed)		0.000	0.000	.233	0.000	0.000	.001	0.000	0.000	.000	.000
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Freedom	Correlation Coefficient	.219**	1.000	.252**	-.012	.422**	-.101**	-.001	-.101**	-.101**	-.033**	-.058**
		Sig. (1-tailed)	0.000		0.000	.014	0.000	.000	.436	.000	.000	.000	.000
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Love	Correlation Coefficient	.274**	.252**	1.000	-.012	.397**	-.111**	-.042**	-.064**	-.078**	-.011	-.010
		Sig. (1-tailed)	0.000	0.000		.012	0.000	.000	.000	.000	.000	.026	.030
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Security	Correlation Coefficient	.004	-.012	-.012	1.000	.048**	.357**	.039**	.386**	.165**	.190**	.234**
		Sig. (1-tailed)	.233	.014	.012		.000	0.000	.000	0.000	.000	.000	0.000
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Power	Correlation Coefficient	.250**	.422**	.397**	.048**	1.000	-.074**	-.009	-.055**	-.102**	.025**	.010
		Sig. (1-tailed)	0.000	0.000	0.000	.000		.000	.057	.000	.000	.000	.036
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Making Ends Meet	Correlation Coefficient	-.448**	-.101**	-.111**	.357**	-.074**	1.000	.000	.658**	.303**	.250**	.346**
		Sig. (1-tailed)	0.000	.000	.000	0.000	.000		.474	0.000	0.000	0.000	0.000
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Keeping Track	Correlation Coefficient	.017**	-.001	-.042**	.039**	-.009	.000	1.000	-.107**	.148**	.193**	-.094**
		Sig. (1-tailed)	.001	.436	.000	.000	.057	.474		.000	.000	.000	.000
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Planning Ahead	Correlation Coefficient	-.379**	-.101**	-.064**	.386**	-.055**	.658**	-.107**	1.000	.327**	.312**	.441**
		Sig. (1-tailed)	0.000	.000	.000	0.000	.000	0.000	.000		0.000	0.000	0.000
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Choosing Products	Correlation Coefficient	-.247**	-.101**	-.078**	.165**	-.102**	.303**	.148**	.327**	1.000	.432**	.123**
		Sig. (1-tailed)	0.000	.000	.000	.000	.000	0.000	.000	0.000		0.000	.000
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Staying Informed	Correlation Coefficient	-.163**	-.033**	-.011	.190**	.025**	.250**	.193**	.312**	.432**	1.000	.089**
		Sig. (1-tailed)	.000	.000	.026	.000	.000	0.000	.000	0.000	0.000		.000
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623
	Perception of Wealth	Correlation Coefficient	-.169**	-.058**	-.010	.234**	.010	.346**	-.094**	.441**	.123**	.089**	1.000
		Sig. (1-tailed)	.000	.000	.030	0.000	.036	0.000	.000	0.000	.000	.000	
		N	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623	33623

Table 17 Correlations of Money Attitudes with the elements of Financial Capability

			Occupation	Age Group	Highest level of educational qualification	Annual gross household income	Social class	Political Orientation	Religiosity	Making Ends Meet	Keeping Track	Planning Ahead	Choosing Products	Staying informed
Spearman's rho	Occupation	Correlation Coefficient	1.000	-.008	.400**	.432**	.305**	.025**	.037**	.145**	-.115**	.211**	.143**	.135**
		Sig. (2-tailed)		.238	0.000	0.000	0.000	.000	.000	.000	.000	0.000	.000	.000
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715
	Age Group	Correlation Coefficient	-.008	1.000	-.047**	.132**	.009	-.015**	.071**	.070**	.007	.170**	.109**	.163**
		Sig. (2-tailed)	.238		.000	.000	.119	.007	.000	.000	.194	.000	.000	.000
		N	33598	33598	33598	31841	33598	33598	33598	33598	33598	33598	33598	33598
	Highest level of educational qualification	Correlation Coefficient	.400**	-.047**	1.000	.309**	.427**	.137**	.085**	.195**	-.155**	.254**	.183**	.184**
		Sig. (2-tailed)	0.000	.000		0.000	0.000	.000	.000	.000	0.000	0.000	.000	.000
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715
	Annual gross household income	Correlation Coefficient	.432**	.132**	.309**	1.000	.385**	-.043**	.017**	.251**	-.189**	.388**	.189**	.205**
		Sig. (2-tailed)	0.000	.000	0.000		0.000	.000	.002	0.000	.000	0.000	.000	.000
		N	31945	31841	31945	31945	31945	31945	31945	31945	31945	31945	31945	31945
	Social class	Correlation Coefficient	.305**	.009	.427**	.385**	1.000	.021**	.017**	.235**	-.184**	.314**	.179**	.173**
		Sig. (2-tailed)	0.000	.119	0.000	0.000		.000	.001	0.000	.000	0.000	.000	.000
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715
	Political Orientation	Correlation Coefficient	.025**	-.015**	.137**	-.043**	.021**	1.000	-.052**	-.015**	-.045**	-.031**	.005	-.051**
		Sig. (2-tailed)	.000	.007	.000	.000	.000		.000	.001	.000	.000	.388	.000
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715
	Religiosity	Correlation Coefficient	.037**	.071**	.085**	.017**	.017**	-.052**	1.000	-.014**	-.012**	.050**	.021**	.054**
		Sig. (2-tailed)	.000	.000	.000	.002	.001	.000		.013	.028	.000	.000	.000
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715
	Making Ends Meet	Correlation Coefficient	.145**	.070**	.195**	.251**	.235**	-.015**	-.014**	1.000	-.001	.657**	.303**	.250**
		Sig. (2-tailed)	.000	.000	.000	0.000	0.000	.001	.013		.890	0.000	0.000	0.000
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715
	Keeping Track	Correlation Coefficient	-.115**	.007	-.155**	-.189**	-.184**	-.045**	-.012**	-.001	1.000	-.105**	.145**	.193**
		Sig. (2-tailed)	.000	.194	.000	.000	.000	.000	.028	.890		.000	.000	.000
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715
	Planning Ahead	Correlation Coefficient	.211**	.170**	.254**	.388**	.314**	-.031**	.050**	.657**	-.105**	1.000	.327**	.312**
		Sig. (2-tailed)	0.000	.000	0.000	0.000	0.000	.000	.000	0.000	.000		0.000	0.000
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715
	Choosing Products	Correlation Coefficient	.143**	.109**	.183**	.189**	.179**	.005	.021**	.303**	.145**	.327**	1.000	.432**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.388	.000	.000	0.000	.000	0.000	.000
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715
	Staying informed	Correlation Coefficient	.135**	.163**	.184**	.205**	.173**	-.051**	.054**	.250**	.193**	.312**	.432**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	0.000	.000	0.000	0.000	
		N	33715	33598	33715	31945	33715	33715	33715	33715	33715	33715	33715	33715

** . Correlation is significant at the 0.01 level (2-tailed).

Table 18 Correlation of Socio-Economic and Financial Capability factors

Gender = Male			Occupation	Age Group	Highest level of educational qualification	Annual gross household income	Social class	Political Orientation	Religiousness	Making Ends Meet	Keeping Track	Planning Ahead	Choosing Products	Staying Informed
Spearman's rho	Occupation	Correlation Coefficient	1.000	-.023**	.414**	.430**	.313**	.001	.035**	.151**	-.101**	.213**	.164**	.144**
		Sig. (2-tailed)		.008	0.000	0.000	0.000	.857	.000	.000	.000	.000	.000	.000
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891
Age Group	Correlation Coefficient		1.000	-.047**	.177**	.000	-.032**	.040**	.073**	.004	.175**	.117**	.146**	
		Sig. (2-tailed)		.008	.000	.000	.954	.000	.000	.000	.802	.000	.000	.000
	N		14843	14843	14843	13941	14843	14843	14843	14843	14843	14843	14843	14843
Highest level of educational qualification	Correlation Coefficient		.414**	-.047**	1.000	.309**	.439**	.088**	.085**	.210**	-.128**	.283**	.189**	.178**
		Sig. (2-tailed)		0.000	.000	.000	0.000	0.000	.000	.000	.000	.000	.000	.000
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891
Annual gross household income	Correlation Coefficient		.430**	.177**	.309**	1.000	.372**	-.077**	.024**	.256**	-.158**	.383**	.174**	.220**
		Sig. (2-tailed)		0.000	.000	.000	.000	0.000	.000	.005	.000	0.000	.000	.000
	N		13985	13941	13985	13985	13985	13985	13985	13985	13985	13985	13985	13985
Social class	Correlation Coefficient		.313**	.000	.439**	.372**	1.000	-.027**	.029**	.230**	-.135**	.307**	.178**	.188**
		Sig. (2-tailed)		.954	0.000	0.000	0.000	.001	.000	.000	.000	0.000	.000	.000
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891
Political Orientation	Correlation Coefficient		.001	-.032**	.088**	-.077**	-.027**	1.000	-.058**	-.040**	-.041**	-.058**	-.013	-.083**
		Sig. (2-tailed)		.857	.000	.000	.000	.001	.000	.000	.000	.000	.000	.109
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891
Religiousness	Correlation Coefficient		.035**	.040**	.085**	.024**	.029**	-.058**	1.000	.008	-.008	.088**	.020	.069**
		Sig. (2-tailed)		.000	.000	.000	.005	.000	.000	.000	.481	.485	.000	.014
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891
Making Ends Meet	Correlation Coefficient		.151**	.073**	.210**	.256**	.230**	-.040**	.008	1.000	.036**	.683**	.299**	.252**
		Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.481	.000	.000	0.000	.000
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891
Keeping Track	Correlation Coefficient		-.101**	.004	-.128**	-.158**	-.135**	-.041**	-.008	.036**	1.000	-.081**	.188**	.216**
		Sig. (2-tailed)		.802	.000	.000	.000	.000	.000	.485	.000	.000	.000	.000
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891
Planning Ahead	Correlation Coefficient		.213**	.175**	.283**	.383**	.307**	-.058**	.088**	.683**	-.081**	1.000	.333**	.326**
		Sig. (2-tailed)		.000	.000	.000	0.000	0.000	.000	.000	0.000	.000	.000	0.000
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891
Choosing Products	Correlation Coefficient		.164**	.117**	.189**	.174**	.178**	-.013	.020	.299**	.188**	.333**	1.000	.430**
		Sig. (2-tailed)		.000	.000	.000	.000	.000	.109	.014	.000	.000	0.000	.000
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891
Staying Informed	Correlation Coefficient		.144**	.146**	.178**	.220**	.188**	-.083**	.069**	.252**	.216**	.326**	.430**	1.000
		Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	0.000	.000
	N		14891	14843	14891	13985	14891	14891	14891	14891	14891	14891	14891	14891

** Correlation is significant at the 0.01 level (2-tailed).

Table 19 MALE Correlation of Socio-Economic and Financial Capability factors

Gender = Female			Occupation	Age Group	Highest level of educational qualification	Annual gross household income	Social class	Political Orientation	Religiosity	Making Ends Meet	Keeping Track	Planning Ahead	Choosing Products	Staying Informed
Spearman's rho	Occupation	Correlation Coefficient	1.000	.010	.390**	.428**	.297**	.060**	.049**	.137**	-.125**	.204**	.126**	.117**
		Sig. (2-tailed)		.189	0.000	0.000	0.000	.000	.000	.000	.000	.000	.000	.000
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024
	Age Group	Correlation Coefficient	.010	1.000	-.047**	.101**	.021**	-.004	.092**	.074**	.006	.173**	.103**	.166**
		Sig. (2-tailed)	.189		.000	.000	.004	.811	.000	.000	.424	.000	.000	.000
		N	18953	18953	18953	17960	18953	18953	18953	18953	18953	18953	18953	18953
	Highest level of educational qualification	Correlation Coefficient	.390**	-.047**	1.000	.318**	.423**	-.180**	.079**	.192**	-.176**	.251**	.179**	.157**
		Sig. (2-tailed)	0.000	.000		0.000	0.000	.000	.000	.000	.000	.000	.000	.000
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024
	Annual gross household income	Correlation Coefficient	.428**	.101**	.318**	1.000	.345**	.007	.038**	.226**	-.184**	.339**	.184**	.170**
		Sig. (2-tailed)	0.000	.000	0.000		0.000	.318	.000	.000	.000	0.000	.000	.000
		N	17960	17960	17960	17960	17960	17960	17960	17960	17960	17960	17960	17960
	Social class	Correlation Coefficient	.297**	.021**	.423**	.345**	1.000	.082**	.034**	.226**	-.175**	.305**	.181**	.153**
		Sig. (2-tailed)	0.000	.004	0.000	0.000		.000	.000	.000	.000	.000	.000	.000
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024
	Political Orientation	Correlation Coefficient	.060**	-.004	.180**	.007	.082**	1.000	-.067**	.022**	-.095**	.010	.023**	-.002
		Sig. (2-tailed)	.000	.811	.000	.318	.000		.000	.002	.000	.189	.002	.739
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024
	Religiosity	Correlation Coefficient	.049**	.092**	.079**	.038**	.034**	-.067**	1.000	-.003	-.032**	.069**	.025**	.071**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.841	.000	.000	.001	.000
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024
	Making Ends Meet	Correlation Coefficient	.137**	.074**	.192**	.226**	.226**	.022**	-.003	1.000	-.014	.644**	.306**	.229**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.002	.841		.062	0.000	0.000	.000
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024
	Keeping Track	Correlation Coefficient	-.125**	.006	-.176**	-.184**	-.175**	-.066**	-.032**	-.014	1.000	-.132**	.137**	.195**
		Sig. (2-tailed)	.000	.424	.000	.000	.000	.000	.000	.082		.000	.000	.000
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024
	Planning Ahead	Correlation Coefficient	.204**	.173**	.251**	.339**	.305**	.010	.069**	.644**	-.132**	1.000	.323**	.280**
		Sig. (2-tailed)	.000	.000	.000	0.000	0.000	.189	.000	0.000	.000		0.000	0.000
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024
	Choosing Products	Correlation Coefficient	.126**	.103**	.179**	.184**	.181**	.023**	.025**	.306**	.137**	.323**	1.000	.435**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.002	.001	0.000	.000	0.000		0.000
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024
	Staying Informed	Correlation Coefficient	.117**	.166**	.157**	.170**	.153**	-.002	.071**	.229**	.195**	.280**	.435**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.739	.000	.000	.000	0.000	0.000	
		N	19024	18953	19024	17960	19024	19024	19024	19024	19024	19024	19024	19024

** Correlation is significant at the 0.01 level (2-tailed).

Table 20 FEMALE Correlation of Socio-Economic and Financial Capability factors

			Anxiety	Security	Freedom	Power	Love	Occupation	Age Group	Highest level of educational qualification	Annual gross household income	Social class	Political Orientation	Religiousness
Spearman's rho	Anxiety	Correlation Coefficient	1.000	.004	.219**	.250**	.274**	-.139**	-.142**	-.164**	-.218**	-.221**	-.028**	.044**
		Sig. (2-tailed)		.442	0.000	0.000	0.000	.000	.000	.000	0.000	0.000	.000	.000
		N	33715	33715	33715	33715	33715	33715	33596	33715	31945	33715	33715	33715
	Security	Correlation Coefficient	.004	1.000	-.012*	.048**	-.012*	.040**	-.041**	.115**	.034**	.085**	-.019**	.072**
		Sig. (2-tailed)	.442		.031	.000	.025	.000	.000	.000	.000	.000	.000	.000
		N	33715	33715	33715	33715	33715	33596	33715	33596	31945	33715	33715	33715
	Freedom	Correlation Coefficient	.219**	-.012*	1.000	.422**	.252**	-.054**	.019**	-.098**	-.031**	-.057**	-.065**	-.072**
		Sig. (2-tailed)	0.000	.031		0.000	0.000	.000	.000	.000	.000	.000	.000	.000
		N	33715	33715	33715	33715	33715	33715	33596	33715	31945	33715	33715	33715
	Power	Correlation Coefficient	.250**	.048**	.422**	1.000	.397**	-.042**	-.114**	-.085**	.011*	-.038**	-.182**	.010
		Sig. (2-tailed)	0.000	.000	0.000		0.000	.000	.000	.000	.042	.000	.000	.056
		N	33715	33715	33715	33715	33715	33715	33596	33715	31945	33715	33715	33715
	Love	Correlation Coefficient	.274**	-.012*	.252**	.397**	1.000	-.002	-.083**	.011*	.015**	.031**	-.041**	.057**
		Sig. (2-tailed)	0.000	.025	0.000	0.000		.689	.000	.050	.006	.000	.000	.000
		N	33715	33715	33715	33715	33715	33715	33596	33715	31945	33715	33715	33715
	Occupation	Correlation Coefficient	-.139**	.040**	-.054**	-.042**	-.002	1.000	-.006	.400**	.432**	.308**	.028**	.037**
		Sig. (2-tailed)	.000	.000	.000	.000	.689		.238	0.000	0.000	0.000	.000	.000
		N	33715	33715	33715	33715	33715	33715	33596	33715	31945	33715	33715	33715
	Age Group	Correlation Coefficient	-.142**	-.041**	.019**	-.114**	-.083**	-.008	1.000	-.047**	.132**	.009	-.015**	.071**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.238		.000	.000	.119	.007	.000
		N	33596	33596	33596	33596	33596	33596	33596	33596	31841	33596	33596	33596
	Highest level of educational qualification	Correlation Coefficient	-.164**	.115**	-.096**	-.085**	.011*	.400**	-.047**	1.000	.309**	.427**	.137**	.086**
		Sig. (2-tailed)	.000	.000	.000	.000	.050	0.000	.000		0.000	0.000	.000	.000
		N	33715	33715	33715	33715	33715	33715	33596	33715	31945	33715	33715	33715
	Annual gross household income	Correlation Coefficient	-.218**	.034**	-.031**	.011*	.015**	.432**	.132**	.309**	1.000	.365**	-.043**	.017**
		Sig. (2-tailed)	0.000	.000	.000	.042	.006	0.000	.000	0.000		0.000	.000	.002
		N	31945	31945	31945	31945	31945	31945	31841	31945	31945	31945	31945	31945
	Social class	Correlation Coefficient	-.221**	.085**	-.057**	-.038**	.031**	.308**	.009	.427**	.365**	1.000	.021**	.017**
		Sig. (2-tailed)	0.000	.000	.000	.000	.000	0.000	.119	0.000	0.000		.000	.001
		N	33715	33715	33715	33715	33715	33715	33596	33715	31945	33715	33715	33715
	Political Orientation	Correlation Coefficient	-.028**	-.019**	-.065**	-.182**	-.041**	.028**	-.015**	.137**	-.043**	.021**	1.000	-.052**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.007	.000	.000	.000		.000
		N	33715	33715	33715	33715	33715	33715	33596	33715	31945	33715	33715	33715
	Religiousness	Correlation Coefficient	.044**	.072**	-.072**	.010	.057**	.037**	.071**	.086**	.017**	.017**	-.052**	1.000
		Sig. (2-tailed)	.000	.000	.000	.056	.000	.000	.000	.000	.002	.001	.000	
		N	33715	33715	33715	33715	33715	33715	33596	33715	31945	33715	33715	33715

** . Correlation is significant at the 0.01 level (2-tailed).

Table 21 Correlation of Socio-Economic and Money Attitude factors

Gender = Male			Anxiety	Security	Freedom	Power	Love	Occupation	Age Group	Highest level of educational qualification	Annual gross household income	Social class	Political Orientation	Religiosity
Spearman's rho	Anxiety	Correlation Coefficient	1.000	.059**	.229**	.299**	.256**	-.140**	-.145**	-.178**	-.215**	-.226**	-.017	.048**
		Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.042	.000
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691
	Security	Correlation Coefficient	.059**	1.000	.000	.065**	-.012	.036**	-.027**	.129**	.045**	.067**	-.032**	.109**
		Sig. (2-tailed)	.000		.961	.000	.152	.000	.001	.000	.000	.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691
	Freedom	Correlation Coefficient	.229**	.000	1.000	.402**	.236**	-.074**	.008	-.111**	-.060**	-.078**	-.057**	-.094**
		Sig. (2-tailed)	.000	.961		.000	.000	.000	.330	.000	.000	.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691
	Power	Correlation Coefficient	.299**	.065**	.402**	1.000	.405**	-.057**	-.160**	-.067**	-.022	-.066**	-.186**	.033**
		Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.011	.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691
	Love	Correlation Coefficient	.256**	-.012	.236**	.405**	1.000	-.017	-.117**	-.014	.011	.011	-.055**	.070**
		Sig. (2-tailed)	.000	.152	.000	.000		.036	.000	.063	.199	.173	.000	.000
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691
	Occupation	Correlation Coefficient	-.140**	.036**	-.074**	-.057**	-.017	1.000	-.023**	.414**	.430**	.313**	.001	.035**
		Sig. (2-tailed)	.000	.000	.000	.000	.036		.006	.000	.000	.000	.857	.000
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691
	Age Group	Correlation Coefficient	-.145**	-.027**	.008	-.160**	-.117**	-.023**	1.000	-.047**	.177**	.000	-.032**	.040**
		Sig. (2-tailed)	.000	.001	.330	.000	.000	.006		.000	.000	.954	.000	.000
		N	14643	14643	14643	14643	14643	14643	14643	14643	13941	14643	14643	14643
	Highest level of educational qualification	Correlation Coefficient	-.178**	.129**	-.111**	-.067**	-.014	.414**	-.047**	1.000	.309**	.439**	.068**	.095**
		Sig. (2-tailed)	.000	.000	.000	.000	.063	.000	.000		.000	.000	.000	.000
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691
	Annual gross household income	Correlation Coefficient	-.215**	.045**	-.060**	-.022	.011	.430**	.177**	.309**	1.000	.372**	-.077**	.024**
		Sig. (2-tailed)	.000	.000	.000	.011	.199	.000	.000	.000		.000	.000	.005
		N	13985	13985	13985	13985	13985	13985	13941	13985	13985	13985	13985	13985
	Social class	Correlation Coefficient	-.226**	.067**	-.078**	-.066**	.011	.313**	.000	.439**	.372**	1.000	-.027**	.029**
		Sig. (2-tailed)	.000	.000	.000	.000	.173	.000	.954	.000	.000	.000	.001	.000
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691
	Political Orientation	Correlation Coefficient	-.017	-.032**	-.067**	-.186**	-.055**	.001	-.032**	.068**	-.077**	-.027**	1.000	-.056**
		Sig. (2-tailed)	.042	.000	.000	.000	.000	.857	.000	.000	.000	.001		.000
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691
	Religiosity	Correlation Coefficient	.048**	.109**	-.094**	.033**	.070**	.035**	.040**	.095**	.024**	.029**	-.056**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.005	.000	.000	
		N	14691	14691	14691	14691	14691	14691	14643	14691	13985	14691	14691	14691

** . Correlation is significant at the 0.01 level (2-tailed).

Table 22 MALE Correlation of Socio-Economic and Money Attitude factors

Gender = Female			Anxiety	Security	Freedom	Power	Love	Occupation	Age Group	Highest level of educational qualification	Annual gross household income	Social class	Political Orientation	Religiosity
Spearman's rho	Anxiety	Correlation Coefficient	1.000	-.022**	.232**	.263**	.299**	-.128**	-.146**	-.157**	-.196**	-.195**	-.059**	.014
		Sig. (2-tailed)		.002	.000	.000	0.000	.000	.000	.000	.000	.000	.000	.082
	Security	N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024
		Correlation Coefficient	-.022**	1.000	-.029**	.016*	-.016*	.036**	-.050**	.105**	.010	.088**	.001	.080**
	Freedom	N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024
		Correlation Coefficient	.232**	-.029**	1.000	.429**	.261**	-.044**	.032**	-.084**	-.023**	-.054**	-.055**	-.041**
	Power	N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024
		Correlation Coefficient	.263**	.016*	.429**	1.000	.394**	-.047**	-.076**	-.084**	-.002	-.051**	-.155**	.030**
	Love	N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024
		Correlation Coefficient	.299**	-.016*	.261**	.394**	1.000	.007	-.056**	.030**	.014	.041**	-.024**	.053**
	Occupation	N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024
		Correlation Coefficient	-.128**	.036**	-.044**	-.047**	.007	1.000	.010	.390**	.428**	.297**	.060**	.049**
	Age Group	N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024
		Correlation Coefficient	-.146**	-.050**	.032**	-.076**	-.056**	.010	1.000	-.047**	.101**	.021**	-.004	.092**
	Highest level of educational qualification	N	18953	18953	18953	18953	18953	18953	18953	18953	17900	18953	18953	18953
		Correlation Coefficient	-.157**	.105**	-.084**	-.084**	.030**	.390**	-.047**	1.000	.316**	.423**	.180**	.079**
	Annual gross household income	N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024
		Correlation Coefficient	-.196**	.010	-.023**	-.002	.014	.428**	.101**	.316**	1.000	.345**	.007	.038**
	Social class	N	17960	17960	17960	17960	17960	17960	17900	17960	17960	17960	17960	17960
		Correlation Coefficient	-.195**	.088**	-.054**	-.051**	.041**	.297**	.021**	.423**	.345**	1.000	.062**	.034**
	Political Orientation	N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024
		Correlation Coefficient	-.059**	.001	-.055**	-.155**	-.024**	.080**	-.004	.180**	.007	.062**	1.000	-.087**
	Religiosity	N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024
		Correlation Coefficient	.014	.080**	-.041**	.030**	.053**	.049**	.092**	.079**	.038**	.034**	-.067**	1.000
		N	19024	19024	19024	19024	19024	19024	18953	19024	17960	19024	19024	19024

** . Correlation is significant at the 0.01 level (2-tailed).

Table 23 FEMALE Correlation of Socio-Economic and Money Attitude factors